EFFECTIVENESS OF CHILD TO CHILD APPROACH ON KNOWLEDGE AND EXPRESSED PRACTICE REGARDING DENGUE FEVER AMONG SCHOOL GOING CHILDREN AT TRICHY.

By

M.ANITHA CATHERINE

DISSERTATION SUBMITTED TO THE TAMILNADU Dr. M.G.R. MEDICAL UNIVERSITY, CHENNAI IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE DEGREE OF MASTER OF SCIENCE IN NURSING

APRIL 2016

EFFECTIVENESS OF CHILD TO CHILD APPROACH ON KNOWLEDGE AND EXPRESSED PRACTICE REGARDING DENGUE FEVER AMONG SCHOOL GOING CHILDREN AT TRICHY.

CERTIFICATE

Certified that this is the bonafide work of Ms. M.ANITHA CATHERINE, Dr. G. Sakunthala College of Nursing, Trichy, submitted in partial fulfilment of the requirement for the degree of Master of Science in Nursing from the Dr. M.G.R. Medical University, Chennai.

Dr. Mrs.C.IRENE LIGHT,M.Sc (N),Ph.D (N),
Principal,
Dr. G. Sakunthala College of Nursing,
Trichy.

Trichy

Date

CERTIFICATE

This is to certify that the dissertation entitled "A quasi experimental study to evaluate the effectiveness of child to child approach on knowledge and expressed practice regarding Dengue fever among school going children at selected schools, Trichy" is a bonafide work done **Ms.M.ANITHA CATHERINE,** Dr. G. Sakunthala College of Nursing in partial fulfilment of the university rules and regulations for the award of Degree of Master of Science in Nursing under my guidance and supervision during the academic year 2015-2016.

NAME AND SIGNATURE OF THE GUIDE _____

NAME AND SIGNATURE OF THE HEAD

OF THE DEPARTMENT _____

NAME AND SIGNATURE OF THE

PRINCIPAL _____

EFFECTIVENESS OF CHILD TO CHILD APPROACH ON KNOWLEDGE AND EXPRESSED PRACTICE REGARDING DENGUE FEVER AMONG SCHOOL GOING CHILDREN AT TRICHY.

DISSERTATION COMMITTEE APPROVAL _____

RESEARCH GUIDE _____

Mrs. THANALAKSHMI, M.Sc (N)
Reader,
Dr.G.Sakunthala college of Nursing,
Trichy.

CLINICAL GUIDE _____

Dr. V.KANAGARAJ, M.D, D.C.H, D.L.O
G.V.N Hospital,
Trichy.

A DISSERTATION SUBMITTED TO THE TAMILNADU DR. M.G.R. MEDICAL UNIVERSITY, CHENNAI IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE IN NURSING

April 2016

Date

TO WHOMSOEVER IT MAY CONCERN

This is to certify that the Ethical committee of Dr.G.Sakuthala College of nursing has discussed with its members the topic "A quasi experimental study to evaluate the effectiveness of child to child approach on knowledge and expressed practice regarding Dengue fever among school going children at selected schools, Trichy during the year 2015 - 2016" opted by **Ms.M.ANITHA CATHERINE** and its implication on study subjects for her thesis for M.Sc Nursing programme and the committee passed clearance for the same topic for her to pursue.

Dr. C.IRENE LIGHT, M.Sc (N), Ph.D (N),
Principal,
Dr. G. Sakunthala College of Nursing,
Trichy.

ETHICAL COMMITTEE

ACKNOWLEDGEMENT

I submit all honour and glory to God almighty**.** With his great support and guidance, since I had started this study and now I thank him for giving me much more than I deserve, I praise him for his abundance of grace and blessings on me till the completion of this study.

I express my sincere thanks to the Principal of our college **Dr. Mrs. C. Irene light, M.Sc (N), Ph.D (N)** for her valuable support rendered for completing this study.

It is my pleasure to extend my debt of genuine and heart felt gratitude to our college vice principal **Prof. Mrs. Parasakthi, M.Sc (N)** for her valuable suggestions, enlightened ideas, continuous guidance and for being the source of encouragement to ensure the best in quality of this piece of work.

My deep sense of gratitude to my Research Guide **Mrs.Thanalakshmi, M.Sc(N)** Reader, Department of Child Health Nursing for her valuable guidance and encouragement throughout this study.

I am grateful to the lecturers of Pediatric department of Dr. G. Sakunthala College of Nursing for their constant support, guidance and suggestions throughout the study which helped me a lot to complete this project successfully.

I express my sincere thanks to **Dr. V. Jeyapal, M.S F.I.C.S, F.I.M.S.A,** Chairman, **Dr. V. Kanagaraj, M.D, D.C.H, D.L.O,** Secretary and the Managing Directors of Dr. G. Sakunthala College of Nursing for their support and provision of required facilities for the successful completion of this study.

I express my deep sense of gratitude and immensely thank to my research Medical guide **Dr. V. Kanagaraj, M.D, D.C.H, D.L.O,** G.V.N Hospital, Trichy for his bright, cheerful approach and for his willingness to provide guidance and suggestions to shape my study.

I kindly express my heartfelt gratitude to **Dr.Senthil Kumar, M.Sc., M.Phil.,Ph.D**, EVR College, Trichy, Department of Bio-statistics, for his statistical advice and help in transferring the raw data of this study into valuable findings.

Iam extemly thankful to **Asst.Prof.Mrs.Anusmitha Sebastine**, **M.A, Ph.D** for editing this manuscript of this study.

I am grateful and thankful to the Head Masters and the class teachers of the Municipality school, Ooliyoor and to the Head Master and Class Teacher of Government High School, Avoor, and the Headmistress and Class Teachers of pilot study schools who have allowed and helped me for conducting this study.

My heartfelt thanks to **Mrs.K.Revathy** and **Mrs.P.Revathy,** Librarian of Dr. G Sakunthala College of Nursing for her support and timely help throughout my study.

My heartfelt thanks to 'My cafe Shop', Chathiram Bus Stand, Trichy for their full co operation and helping in to bringing out this study in a printed form

My affectionate thanks to my beloved husband **Mr.Samuel Jothimuthu** for his unconditional love and emotional support, encouragement and help rendered throughout the study.

My loveable thanks to my passionate sons Mr.S.Ebenezer Vedasundaram and Master. S.Ed Emmanuel for their adorable support throughout my study.

I deeply thank my parents **Mr.E.P.Mohandoss** and **Mrs.Suseela** for their encouragement in each part of my study.

I express my sincere thanks to all **my classmates** Namitha Munipass,Smitha T.V, Sreeja.S and Timba for their help and encouragement.

Finally, I extend my sincere thanks to the participants of this study for their co-operation in my endeavor, without which this project would have been a dream.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

ABSTRACT

STATEMENT OF THE PROBLEM

A quasi experimental study to evaluate the effectiveness of child to child approach on knowledge and expressed practice regarding dengue fever among school going children at selected schools, Trichy, 2015 - 2016.

OBJECTIVES

1. To evaluate the existing level of knowledge and expressed practice regarding dengue fever among school going children in control group and experimental group.
2. To evaluate the effectiveness of child to child approach on knowledge and expressed practice regarding dengue fever among school going children in experimental group.
3. To compare the mean post-test level of knowledge and expressed practice regarding dengue fever among school going children in control group and experimental group
4. To correlate the post-test level of knowledge with expressed practice regarding dengue fever among school going children in control group and experimental group.
5. To determine the association between selected demographic variables with pre-test level of knowledge regarding dengue fever among school going children in control group and experimental group
6. To determine the association between selected demographic variables with pre-test level of expressed practice regarding dengue fever among school going children in control group and experimental group

HYPOTHESIS

H1 - There will be a significant difference in the level of knowledge and expressed practice regarding dengue fever after child to child approach among school going children in experimental group.

H2 – There will be a significant difference in post-test level of knowledge and expressed practice regarding dengue fever among school going children in control group and experimental group

H3 - There will be a significant relationship between post-test level of knowledge and expressed practice regarding dengue fever among school going children in control group and experimental group

H4 - There will be a significant association between selected demographic variables with pre-test level of knowledge regarding dengue fever among school going children in control group and experimental group.

H5 - There will be a significant association between selected demographic variables with pre-test level of expressed practice regarding dengue fever among school going children in control group and experimental group.

Conceptual frame work	:	Rosen stocks and Becker's health belief model.
Research Design	:	Quasi Experimental Design EO1 X O2 CO3 O4
Population	:	The study population consisted of 7th standard school children.
Sampling Technique	:	Non Probability convenience sampling technique was used.
Samples	:	School children studying 7^{th} standard at Government schools, Trichy.
Sample size	:	60 samples
Setting	:	Municipality Middle School, Ooliyoor, Trichy and Government High School, Avoor, Trichy.
Tool	:	Self administered Knowledge questionnaire Self administered Expressed practice questionnaire
Data collection	:	The study period for date collection was 20.07.2015 to 21.08.2015. After obtaining permission, the list of change agents were prepared with the help of the teacher, a day prior to data collection. Oral consent was obtained from each study subject, and knowledge and expressed practice questionnaire were administered to each sample including demographic data. Without disturbing the study subjects, the change agents were given training for the initiation of child to child approach programme. Three days after

the training, post-test was given to the change agents to assess whether they have acquired adequate knowledge. On the fifteenth day, the students were allotted to the change agent by convenience method for the initiation of the programme. Then the knowledge on dengue fever was imparted through change agent to their peer group in six sessions. Each teaching session lasted for 30 minutes and discussion for 10 minutes. There were five students in a group for every change agent. Post-test was administered after fourteen days.

Data analysis : The data was analyzed and interpreted in terms of objectives and research hypothesis. Descriptive statistics (frequency, percentage, mean and standard deviation) Inferential statistics (paired t-test, independent t-test, correlation coefficient and chi-square) were used to test the hypothesis.

Major Findings of the study

1. The result of the study showed that the pretest level of knowledge in control group and experimental group was inadequate among school children.
2. In this study the post test level of knowledge and expressed practice was higher than the pre test level of knowledge and expressed practice score in experimental group after child – child approach..

3. In this present study, the mean posttest knowledge and expressed practice in experimental group was higher than the mean pre-test knowledge and expressed practice and the obtained‘t’ value was significant at $p<0.01$ level.
4. In this present study the mean post-test knowledge and expressed practice score regarding dengue fever was significantly higher in experimental group of school children who received child- child approach than control group and the calculated ‘t’ value was higher than the table value and significant at $p< 0.01$ level.
5. In this present study, there was a significant positive correlation between the post-test level of knowledge and post-test expressed practice. significant at $p<0.01$.
6. There was no significant association between selected demographic variables with pretest knowledge in control group and in experimental group there was a significant association between selected demographic variables with pre test knowledge at $p< 0.05$ level
7. There was no significant association between selected demographic variables with pretest expressed practice in control group and there was a significant association between selected demographic variable with pretest expressed practice in experimental group at $p< 0.05$ level.

CONCLUSION

The following is the conclusion based on study findings

Lack of awareness and unhealthy practices create a serious public health threat among school children. The school health is an important intervention as a great deal of research tells us that schools can have a major

effect on children's health by teaching them about health and promoting healthy behaviour.

Promotion of healthy practices in school health service through innovative methods of teaching such as play way method, child to child method, kinder garten learning could be effective means of communication regarding health issues among children.

Imparting the concepts of child to child approach to nursing students and its utilization in the health education in schools, hospitals, and community could be used for disseminating the health messages among children. Therefore, awareness regarding the disease prevention and promotion of health through healthy practices can be promoted for tomorrow’s generation.

CHAPTER I

INTRODUCTION

BACKGROUND OF THE STUDY

Children are the country's biggest human investment for development. It is rather unfortunate that even after 60 years of Independence; our country has made little progress in improving the health condition of our school going children when compared to the developed countries.

United Nation International Children's Fund quoted that children are not only divine gifts, but also the mirror of a nation and hope of the world. Health of the school going children is a key factor in school entry as well as continued participation and attainment in school. Among one of the leading priorities the worldwide is its commitment to ensure that every individual completes a quality primary-school education.

Dr.Sunder, K.R. (2015) explained that school children are an important group because they often form a high propotion. The child spends most of the time in the school between the ages 6 and 15 years.School must be seen as a powerful channel for reaching out the public health information It gives an opportunity to prepare themselves.

World Health Organization stated that an effective school health programme can be one of the most cost effective investments a nation can make to simultaneously improve education and health and also promote school health programmes as a strategic means to prevent important health risk among children and to engage the educational sector in efforts to change the educational, social, economic and political conditions that affect risk.

Damodaran, S. (2015) stated that children are considered as health ambassadors for water and sanitation promotion at the individual household level. School environment plays a pivotal role in the retention and learning outcomes of students. Children act as a “Message carriers” to others.

Child to Child approach was launched in 1978 during the International year of children. Teaching materials were prepared covering developmental needs, nutrition, illnesses and aspects of the environment. Child to child program enhances the quality of primary school education by promoting creativity in children. It enhances to improve the health conditions in the schools by strengthen school health education curriculum.

Child to Child approach helps to improve knowledge of families and communities which leads to bring out changes in practice it also improves the environment and community conditions.

Dr. John, A. (2012) emphasized that communicable diseases are deadly diseases which affect the common population of today. Vector born diseases refers to illness in which the infections agents are transmitted by carriers or vectors. Usually through arthropods namely mosquitoes, ticks, flies etc. Infectious diseases are the major health problem for majority of people all over the world.

Park, K.(2014) stated that Dengue is a mosquito-borne flu virus disease that has spread to most tropical and many sub-tropical area, by one of the four types of dengue viruses Aedes aegypti mosquito is the primary vector of dengue.

Park, K. (2013) said that dengue is not transmitted directly from person to person . Dengue fever is a severe flu like illness that affects infants, young children and adults seldom causing death. The virus is transmitted to humans through the bites of infected female mosquitoes.

The incubation period is from 3 to 14 days. Infected humans are the main carriers and multipliers of the virus serving as a source of the virus of the infected

mosquitoes' patients who are already infected with the dengue virus can transmit this infection for 4-5 days via Aedes mosquitoes after their first symptoms appear.

Aedes aseptic is a day time feeder, its peak biting periods are early in the morning and in the evening before dusk. Female Aedes Aegypti bites multiple people during each feeding period. The large dengue out breaks in recent decades were seen especially after heavy rains. High densities occur during July – November (post monsoon) due to the availability of breeding habitats.

The mosquito breeds mostly in manmade containers like earthenware jars, metal drums, concrete cisterns used for domestic water storage ,discarded plastic food containers, used automobile tyres, coconut shells and other items that collects rainwater.

Ghai, O.P. (2014) stated Dengue should be suspected when a high fever (40 Degree Celsius/ 104 Degree Fahrenheit) is accompanied by two of the following symptoms like severe headache, pain behind the eyes, muscle and joint pains, nausea, vomiting, swollen glands or rash. Symptoms usually last for 2-3 days after an incubation period of 4-10 days after the bite from an infected mosquito. The acute phase of illness can last for 1 week followed by 1 to 2 weeks period of recovery that is characterized by weakness, malaise, loss of appetite.

Dutta, P. (2013) stated the symptoms of dengue hemorrhagic fever is manifested with acute onset of high continuous fever, epigastric discomfort, abdominal pain, tenderness at right costal margin with palpable liver. Moderate to severe thrombocytopenia, hemconcentration, and polyserositis developed. Petechiae, purpura, and ecchymosis are present on the face, extremities, and axillae. Prolonged bleeding will occur at the site of venipuncture.

Dengue shock syndrome is usually found after 2 to 7 days of fever. The patient present with cold congested blotchy skin, rapid and weak pulse, lethargy,

restlessness may occur before onset of shock. Hypotension, reduced pulse pressures are found. Good prognosis is indicated by good appetite and adequate urine output.

Severe dengue is potentially deadly with complication due to plasma leaking, fluid accumulation, respiratory distress, severe bleeding or organ impairment warning signs occurs with a decrease in temperature (below 104 Degree Fahrenheit) severe abdominal pain persistent vomiting, rapid breathing, bleeding gums, fatigue restlessness and blood in vomit, the next 24-48 hours of the critical stage can be lethal, proper medical care is needed to avoid complications and risk of death.

The diagnosis of dengue fever is confirmed by serum sample collected from person within 5 days after appearance of symptoms. The serum is tested for specific anti dengue anti bodies by ELISA, Antibody Titers of IgM and IgG and Polymerase chain Reaction detection and decreased platelet count.

There is no specific treatment for dengue fever. Symptomatic treatment should be done. The patient needs hospitalization for proper treatment in order to reduce mortality rate. Supportive treatment like intravenous fluid replacement and anti – biotic therapy is required. Patients are asked to drink plenty of water and juices in order to prevent dehydration. Monitoring of vital signs, intake and output chart that are essential. Salicilates should be avoided because it may precipitate bleeding tendency and metabolic acidosis.

Bhatt (2015) stated that, dengue fever can be prevented by control of mosquitoes from accessing egg laying habitats by environmental management and modification, disposal of solid waste properly, covering, emptying and cleaning of domestic water storage containers on weekly basis. Prevention of mosquito bite by use of nets at night, repellant creams or coils containing chemical DEET. To avoid bite, wear long sleeved clothes and long pants. Measures should be taken to prevent mosquito breeding in stored water bodies.

Researchers found that the juice obtained from the papaya leaves helps in the dengue fever treatment. The extract from that leaves increases the platelet count in patients with dengue. The Indian medicine such as Papaya juice extract. Nilavembu and Malivembu kudineer along with conventional medicine are used for the control of Dengue. Daily surveillance is carried out and the disease is now under control.

Nivedita Gupta quoted that Dengue vaccines have been under development since 1940's, but a tetravalent vaccine which simultaneously provides long term protection against all dengue stereotypes is round the corner

The Times Of India (2015) quoted that the health wing of Trichy corporation intensified its awareness measures about the prevention of dengue. In its latest measure a vehicle fitted with an awareness cabin was introduced to spread messages to eradicate the source of mosquito breeding site from February 1st 2015.

The Hindu (2015) stated that as for the Trichy Corporation limit, there are 200 Domestic Breeding Checker (DBC) who are carrying out source reduction measure in the 65 wards of the city limits. The nursing students of some colleges have also joined them. They remove the sources from all the houses in the city limits to stop breeding of mosquitoes. The awareness activities had brought a change in the habits of people most of whom were storing water in an unsafe manner.

Dengue is one of the major public health problems which can be controlled with active participation of the community. There is a need to organize health education programmes about dengue disease to increase community knowledge and sensitize the community to participate in integrated vector control programmes.

Park, K. (2014) stated that Health education in schools is one of the functions of public health Nurse or health worker. If children are educated, they

will take the information to their parents and when they become adults they would apply this knowledge to their own families to improve the health status.

NEED FOR THE STUDY

Globally climate change is getting reflected in unusual rainfall pattern leading to surplus rains in some locations, deficient rains elsewhere and untimely burst of rainfall. Studies indicate that the South Indian states are facing perceptible fluctuations in climatic conditions, and possibly the health of people is directly or indirectly affected because of these fluctuations1:2 . Rise in average temperature, an element of climate change, favours higher breeding and spread of the vectors such as Aedes aegypti, and consequently spread of dengue virus3 . In general, incidences of dengue fever, a mosquito-borne tropical disease (Flavivirus, an RNA virus of the family Flaviviridae), are increasing fast resulting sin higher morbidity and mortality in humans worldwide, particularly in tropical and subtropical countries

Viana, D.V., Ignotti, E. (2013) performed a systemic review of 31 articles published in databases using descriptors related to weather variations and dengue fever in Brazil, published between 1991 to 2010.Ecological design was used, the studies made use of entomological trapping, that are common also series of studies of the disease and spatial analysis. There is evident relationship between dengue incidence with temperature and rainfall, Dengue is strongly related to meteorological variables. The seasonal variation in temperature and rainfall influences the dynamics of the vector and the incidence of the disease throughout the country, regardless of the climate category.

Over the past 10-15 years, next to diarrheal disease and acute respiratory infection dengue has become a leading cause of hospitalization and death among children. In India epidemics are becoming more frequent. If untreated mortality from complication of dengue fever is as high as 20% where as if recognized early and managed properly, mortality is less that 1%.

The first record of a case of dengue fever in Chinese encyclopedia from the Jin Dynasty (265-420 AD) which is referred to a water poison associated with flying insects.

The incidence of dengue has grown dramatically around the world in recent decades. One recent estimate indicates 390 million dengue infections per year (95% credible interval 284-528 million) of which 96 million (67-136 million) manifest clinically. Another study of the prevalence of dengue estimates that 3900 million people in 128 countries are at risk of infection with dengue virus

In 2013, over 3 million people across America, South-East Asia and Western Pacific and 2.35 million dengue cases in America alone were reported. In 2014 an estimated 5,00,000 people with severe dengue require hospitalization each year a large proportion of which were children, about 2.5% of those affected die. A report of working group on disease burden 12^{th} five year plan (2012-2017)

In India the risk of dengue has shown an increase in recent years due to urbanization, lifestyle changes and deficient water management including improper water storage practices in urban, peri-urban and rural areas leading to proliferation of mosquito breeding sites. It is a recurrent problem in West Benga were dengue was first documented in 1824 and dengue Hemorrhagic fever was first reported in Kolkata in 1963-64 and increased in large number of scale.

Nivedita, G., Sakshi, S., Amita, J. and Umesh, C. (2012) stated that approximately 2.5 billion people live in dengue-risk regions with about 100 million new cases each year worldwide. The cumulative dengue diseases burden has attained an unprecedented proportion in recent times with sharp increase in the size of human population at risk. Dengue disease presents highly complex pathophysiological, economic and ecological problems. In India, the first epidemic of clinical dengue-like illness was recorded in Madras (now Chennai) in 1780 and the first virologically proved epidemic of dengue fever (DF) occurred in Calcutta (now Kolkata) and Eastern Coast of India in 1963-1964. During the last 50 years a

large number of physicians have treated and described dengue disease in India, but the scientific studies addressing various problems of dengue disease have been carried out at limited number of centres. Achievements of Indian scientists are considerable; however, a lot remain to be achieved for creating an impact. This paper briefly reviews the extent of work done by various groups of scientists in this country

In the year of 2012, 9249 cases were reported from Tamilnadu, which is the highest number followed by West Bengal which reported 6,067.The highest number of deaths were also reported in Tamil Nadu where 60 succumbed to the disease. especially in Chennai 2001, 737 cases were reported in Chennai out of total 816 cases for the whole state.

In Trichy, in 2014, 188 cases were reported as dengue positive out of which 21 were children.(Trichy Corporation).In Tamilnadu, for diagnosis of the disease, the Government of India has identified 30 sentinel surveillance Hospitals including Medical College Hospitals, Zonal Entomological Teams, Institute of Vector Control and Zoonoses, Hosur, and District Headquarters hospital-Cuddalore and Ramanathapuram and 1 Apex laboratory (King institute of Preventive Medicine and Research , Guindy) for diagnosis of Dengue and Chikungunya.

Watson's (1999) Human Science and Human Care theory was incorporated into teaching health promotion to a group of school-going children. “Preservation and advancement of human care is a critical issue for nursing today in our increasingly depersonalized society. The mandate for nursing within science as well as within society is a demand for cherishing of the wholeness of human personality.” Today children today have to deal with this societal “depersonalization.” However, children grow up to perceive themselves and others are crucially in developing future adults who genuinely care about themselves and humankind in its totality.

This study was based on Florence Nightingale theory focused on the environment. The theorist stated that environment which is capable of preventing, suppressing or contributing to disease, accidents or deaths, It is the external conditions and influences affecting the life and development of an organism. Her major concepts are ventilation,warmth,light,diet,cleanliness and noise which comprise the components of environment. She said that there are five essential points in securing the health of houses such as pure air, pure water, efficient drainage, cleanliness and light. This should be relevant to this study. Keeping all these facts in view a need was felt to carry out this study.

Due to scarcity of water, the people in peri urban areas store water for washing/ drinking purposes in plastic drums, concrete tank. The water storage containers are rarely washed and they form ideal breading site for Aedes mosquitoes.74% of people stored water for longer periods without a proper lid in the peri urban areas. To escape from mosquito bites, they adopt various preventive measures only during the night, they could not differentiate characteristics of Aedes aegypti from other mosquitoes. In Delhi 90% of Aedes aegypti mosquitoes were found rampantly breeding in the water stagnated in the coolers. Health awareness programmes need to be conducted in these areas especially among women who are more responsible for household activities especially with respect to cleanliness of the house.

The present position with regard to the health and nutritional status of the children in our country is very unsatisfactory. Surveys carried out in 2014 estimated 500000 people with severe dengue required hospitalization each year a large proportion of which were children, about 2.5% of those affected die. During the year 2014(up to 15.05.2014) 590 cases were reported with nil death.

Health problems of school children vary from one place to another. These health problems can make learning difficult and may seriously hamper the educational process and the child's intellectual growth and may also handicap the child for life.

During the clinical experience, the researcher considered the number of school children admitted with dengue fever. Keeping all these facts in view, a need was felt by the researcher to carry out study on dengue fever among school going children.

STATEMENT OF THE PROBLEM

A quasi experimental study to evaluate the effectiveness of child to child approach on knowledge and expressed practice regarding dengue fever among school going children at selected schools, Trichy during the year 2015-2016.

OBJECTIVES

1. To evaluate the existing level of knowledge and expressed practice regarding dengue fever among school going children in control group and experimental group.
2. To evaluate the effectiveness of child to child approach on knowledge and expressed practice regarding dengue fever among school going children in experimental group.
3. To compare the mean post-test level of knowledge and expressed practice regarding dengue fever among school going children in control group and experimental group.
4. To correlate the post-test level of knowledge with expressed practice regarding dengue fever among school going children in control group and experimental group.
5. To determine the association between selected demographic variables with pre test level of knowledge regarding dengue fever among school going children in control group and experimental group.
6. To determine the association between selected demographic variables with pre test level of expressed practice regarding dengue fever among school going children in control group and experimental group.

HYPOTHESIS

H1 - There will be a significant difference in the level of knowledge and expressed practice regarding dengue fever after child to child approach among school going children in experimental group.

H2 – There will be a significant difference in post-test level of knowledge and expressed practice regarding dengue fever among school going children in experimental and control group.

H3 - There will be a significant relationship between post-test level of knowledge and expressed practice regarding dengue fever among school going children in control group and experimental group.

H4 - There will be a significant association between selected demographic variables with pre-test level of knowledge regarding dengue fever among school going children in control group and experimental group.

H5 - There will be a significant association between selected demographic variables with pre-test level of knowledge and expressed practice regarding dengue fever among school going children in control group and experimental group.

OPERATIONAL DEFINITION

Effectiveness

A result produced by an action

In this study, it refers to the change in post-test level of knowledge and expressed practice among school going children regarding dengue fever as measured by the knowledge questionnaire

Child to child approach

The Child-to-Child approach is a constructive and practical way in which children and adults can work together with Child-to-Child ideas to teach health education and promote health activities in schools

In this study, it refers to the process of providing health education to the 7^{th} std students (peer group) through the change agents to impart knowledge regarding dengue fever. Change agents were first six top scorers of the selected section as per the teacher's opinion. The change agents were trained for the initiation of child to child approach programme. Three days after training, post-test was given to the change agents to assess whether they have acquired adequate knowledge. Retraining was given in case of inadequate knowledge observed in change agents. On fifteenth day, the students were allotted to the change agents by convenience method for the initiation of program. Then, the knowledge on dengue fever was imparted through the change agents to their peer group in 6 sessions. Each teaching session last for 30 minutes and discussion for 10 minutes. There were five students for each change agent.

Knowledge

It is defined as the information and understanding about a subject which a person has or which all people have.

In this study, the knowledge is imparted by high scorer of the class to the low scorer and the knowledge acquired is assessed through self-administered questionnaire.

Expressed practice

It is defined as an idea or feeling expressed itself in some way, it can be clearly seen in some ones action or in its effects on a situation.

In this study, it refers to the practice in controlling the breeding of mosquitoes a child is consciously brought out by themselves through practice questionnaire

Dengue fever

Dengue fever is a mosquito borne communicable disease caused by virus that are carried by Aedes mosquitoes. These mosquitoes transmit the virus to humans.

In this study it refers to imparting and creating awareness on knowledge regarding the causes, signs and symptoms, prevention and management of dengue fever.

School Going Children

School children who go to school above the age of 5 years

In this study, it refers to the children studying in 7^{th} standard in government schools.

Assumptions

1. Child to child approach teaching programme may be effective method to increase awareness about dengue fever and its prevention.

2. Increasing knowledge related to prevention of dengue fever helps thus in preventing the disease.
3. Researcher plays an important role as an educator to motivate change agents to brings awareness to their peer groups on prevention of dengue fever.

DELIMITATION

The study is delimited to

1. Only selected government schools at Trichy.
2. To those who are willing and able to learn and transmit the message to their peer group.
3. Only 60 samples.
4. Study period was 6 weeks.

CHAPTER – II

REVIEW OF LITERATURE

INTRODUCTION

Review of literature is an important step in the development of the research project and in broadening the understanding and developing an insight into the problem area. It further helps in development of the broad conceptual context in which the methodology, construction of tools and development of instructional module and analysis of data are presented.

(Polit)

The aim of this systematic review is to summaries the best available information regarding dengue fever. The most current information helps in providing adequate knowledge and healthy practices to control mosquito breeding places and prevent dengue fever.

THE REVIEW OF LITERATURE IS ORGANISED UNDER THE FOLLOWING HEADING

1. Review of literature related to dengue fever.
2. Review of literature related to knowledge and practice on dengue fever.
3. Review of literature related to Child to Child approach.

1. REVIEW OF LITERATURE RELATED TO DENGUE FEVER

Bharathi, N., Karthikayan, S. and Ramakrishnan. (2015) performed a study to evaluate the intensity of vector breeding and risk factors in schools at dindigul district, Tamilnadu. Samples were collected from various schools surrounding Dindigul district and the study interpretations were more cases reported between the months of September and December, hence top priority should be given by

schools while planning activities to curtail dengue prevalence and risk factors among the student community.

Ramzan, M., Ansar, A. and Nadeem, S. (2015) did a corelatioal study on knowledge and preventive practices on dengue fever. Three hundred and sixty-three participants were selected through Stratified Random Sampling. Level of knowledge was highly associated with levels of practice and the study concluded that knowledge and preventive practices are associated to their gender, marital status, age and occupation. Preventive practices get better, where knowledge levels, emphasizing the need of community education programme.

Zhang, F. (2014) conducted a study to compare treatment of dengue with or without use of corticosteroids or placebo in relation to preventing shock-related death and disease progression in children and adults, 948 participants were collected by Randomized controlled trials methods and the study concluded that, the evidence from trials using corticosteroids in dengue is inconclusive and the quality of evidence is low to very low. This applies to both the use of corticosteroids in dengue-related shock and for dengue at an early stage.

Wong LP, AbuBakar, S. and Chinna, K. (2014) performed a cross-sectional telephone survey total of 1,400 responses and households were surveyed about their socio-demographics, knowledge, practices, and serological test were performed. The study findings are the community's IgG seropositivity was significantly positive associated with high household monthly income, high-rise residential building type, high surrounding vegetation density, rural locality, high perceived severity and susceptibility, perceived barriers to prevention, knowing that a neighbour has dengue, frequent fogging and a higher level of knowledge about dengue.

Meghnath , Krishna, K.A., Mandira, L., Dl Ishan , Shanker, Chop, and Ulrich (2014) has done a community based cross sectional survey on knowledge and practice on dengue fever in Nepal. 589 individuals were interviewed. 83% of the people had good attitude and 37% reported good practice. They found a

significant positive correlation among knowledge, attitude and practice. Despite the rapid expansion of DENV in Nepal, the knowledge of people about dengue fever was very low. Therefore, massive awareness programmes are urgently required to protect the health of people from dengue fever and to limit its further spread in Nepal.

Vijayalakshmi. (2013) conducted a adult to adult teaching programme to assess knowledge and practice on dengue fever .An evaluative approach pre experimental one group pre – test and post – test design was used, 30 samples were selected by non probability convenience sampling method. The study revealed there was highest mean score in knowledge and practice, significant association between pre test practice with age and educational status.

Begonia, C.Y., Leodoro, J. L. (2013) did a study to evaluate the knowledge and practices regarding dengue infections among rural residents in Samar Province, Philippines. Convenience samples of six hundred forty six (646) participants were taken and the study concluded there was no correlation between knowledge and preventive practices

Suwanbamrung, C., Promsupa, S., Doungsin, T., Tongjan S.(2013) tested a study to determine students basic knowledge of dengue and to examine the larval indices in primary schools and in the students households. This study employed a cross-sectional quantitative and qualitative approach involving meetings with total of 306 students. The larval indices surveyed showed a high risk of dengue, with high indices and the study concluded that risk factors of dengue were related to the students basic knowledge about dengue and the larval indices in both the schools and the students households.

Borges, M .C., Castr, L.A., Fonseca, B.,A. (2013) did a study to evaluate the effect of Tab. chloroquine in patients with dengue. A randomized, double-blind study was performed by administering chloroquine or placebo for three days to 129 patients with dengue-related symptoms. Of these patients, 37 were confirmed as having dengue and completed the study. In that 19 dengue patients received

chloroquine and 18 received placebo. Therefore, this study shows that patients with dengue treated with chloroquine had an improvement in their quality of life and were able to resume their daily activities. However, as chloroquine did not alter the duration of the disease or the intensity and days of fever, further studies are necessary to confirm the clinical effects and to assess the side effects of chloroquine on dengue patients.

Mittal, M., Faridi., Khanna, Shilpa and Patil, R., (2011) was carried out a retrospective study on clinicohematological profile and platelet trenda in children with dengue in Tertiary Care Hospital, North India.135 children with IgM positive were selected.92.6% of children had thrombocytopenia,19.2% had abnormal leucocyte count. The study showed shift to higher age of presentation more number of hemorrhagic fevers and associated co-infections in children. The complications and mortality was low and platelet recovery time was not influenced by disease category

Ashok (2010) conducted a study on community knowledge and behavior following a dengue epidemic in Chennai.34.5% of households were aware of dengue, and 3.3% households knew the causative agent of dengue, 86.5% practiced to store water more than 5 days, and no control measures were taken to prevent breeding of mosquitoes. 65% did not know biting behavior of dengue vector.

Monika Paul (2010) performed a study to assess knowledge and practice of women regarding prevention of dengue fever and the result revealed that the highest mean score was in the area of living and prevention of mosquito breeding inside the houses and lowest mean in the area of signs and symptoms and sullage water disposal.

Manjunath, J.K., Vijaya, S.U., Acharaya (2010) has conducted a prospective study on clinico- epidemiological profile of hospitalized children with dengue illness at Jaipur. A total of 948 children were included between the age of 6-12 years. The study findings were that children between 6 and 12 years were the most

affected by dengue with large number of cases. Epistaxis was the most common spontaneous bleeding manifestations.

REVIEW OF LITERATURE RELATED TO KNOWLEDGE AND PRACTICE ON DENGUE FEVER

Sandeep, K.R., Divya, S., and Suma, J.,(2014) did a cross sectional study on dengue and its prevention among rural high school children in Karnataka. 60 high school children were selected by probability simple random sampling . The post test knowledge score was higher (70.83%). than the pre test knowledge score 28.25% and also had significant association between age and post test knowledge was found.

Shivani, K., Jasbir, K., and Suresh, K.S., (2014) conducted a study to compare the knowledge between Private and Government schools children on dengue fever, totally 500 children were selected from 9th and 10th class of private and government schools using total enumerative sampling technique. Finding of study revealed that Private schools had highest mean knowledge scores as compared to students of Government schools.

Karani, M., Tun-Linn, T. and Naoko, S. (2014) conducted a cross sectional study to assess dengue related knowledge, attitudes, and practices among 640 caretakers of elementary school children in Thailand, a random sampling technique was used.. Mass media (76.7%) and healthcare facilities (67.4%) were the most common sources of information on dengue. Only 37.8% of caretakers had high levels of knowledge, caretakers with post-secondary education were more likely to have higher knowledge than those with primary education, Caretakers's family with greater annual income were more likely to have higher knowledge compared to those with less income Dengue knowledge was not significantly associated with caretaker's age, sex, marital status, or occupation. Attitudes towards dengue prevention were moderate but not significantly associated with any particular factor.

Dr. Kumar, A. (2013) carried out a Educational intervention programme regarding dengue and its Prevention among Urban High School Children. Pretest and two post test was taken, the level of knowledge was significantly high in second post test which after the intervention.

Hasanain F. G., Mohd H. I. and Mohammad R.A, (2013) performed a cross sectional study to assess knowledge, attitude and practice regarding dengue fever and its effectiveness of health education programme among 204 school students. Most of the respondents had good knowledge (63.2%) and good practice(79.9%) regarding dengue fever. Score was significantly increased after health education programme and there is no significant association between knowledge and selected demographic variables.

The study concluded that there is a need to increase health education activities through campaigns and mass media to increase knowledge regarding dengue fever. This would help to inculcate positive attitudes and cultivate better preventive practices among the public to eliminate dengue fever in the country.

Wan Rozita, et al. (2013) tested on a knowledge, attitude and practices (KAP) study in an urbanized residential area of Kualalumpur, concluded that there is a need to strengthen health promotion activities to increase the knowledge that forms the basis for preventive practices as part of the strategy to control dengue outbreaks and good knowledge does not necessarily lead to good practice. This is most likely due to certain practices like water storage for domestic use, which is deeply ingrained in the community. The Dengue vector control requires effective participation of the local community.

Wangkheirakam, R. (2012) conducted a quasi experimental one group pre test and post test design adopted to know the effectiveness of Structured Teaching programme on Knowledge of High School children regarding prevention of dengue Fever in selected schools at Bengaluru. Totally 60 samples were collected

by lottery method, post test knowledge (70%) was higher than the pretest knowledge 43.3% after the structured teaching programme.

Faisal S, Dana T. Dianne C S., John E.and Pauline E. J ,(2010) did a cross-sectional questionnaire survey of 192 parents regarding knowledge, attitudes and practices on dengue infection .More than half of the parents (54%) had good knowledge about signs, symptoms and mode of transmission of dengue, (47%) considered dengue to be a serious but preventable disease, majority (77%) did not use effective dengue preventive methods such as screening of homes and (51%) did not use bed nets. Educational attainment was positively associated with knowledge of dengue. There was no correlation between knowledge about dengue and preventive practices. Radio and TV were the predominant sources of information about dengue fever. The study suggest that health programme planners and practitioners need to identify and facilitate removal of barriers to behavior change related to control of dengue fever and encouraging individuals and families to adopt such simple, inexpensive preventive actions, such as, use of insecticide treated bed nets and screening of homes.

Ahmed Itrat, et al. (2010) did a cross-sectional study on knowledge, attitude and practice among people visiting tertiary care hospitals in Karachi. 447 visitors were selected through convenience sampling. Knowledge was recorded on a scale of 1–3. Sufficient knowledge about dengue was found in (38.5%) of the sample. Literate individuals were relatively more well-informed about dengue fever as compared to the illiterate people. Knowledge based upon preventive measures was found predominantly focused towards prevention of mosquito bites was (78.3%) rather than eradication of mosquito population was (17.3%). Use of anti- mosquito spray was the most prevalent (48.1%) was a preventive measure. Television was considered as the most important and useful source of information on dengue fever.

Ibrahim. R, Adnan, A. and Mohamed, K.(2010) performed a cross-sectional approach was to assess knowledge, attitudes and practice of high school female

students, teachers and supervisors towards Dengue fever , and to determine scoring predictors of high school students knowledge and practice scores. A multistage, stratified, random sample method was applied. A total of 2693 students, 356 teachers and 115 supervisors completed .Students obtained the lowest mean knowledge score compared to the other two groups. The study suggests that School-based educational campaigns and social mobilization for raising knowledge and changing it into sound practice is urgently needed for controlling dengue epidemic.

Murugan, S.(2008) had conducted a knowledge and practices in controlling dengue among primary school children, Johor. A cross-sectional study was carried out among 5th standard pupils .105 students were selected randomly among males and females. The study showed that the level of knowledge on dengue fever and breeding places were low respectivly (44%) and (28%) of pupils only knew how to control . The study showed strong relationship between the knowledge on dengue fever with breeding places and it clearly showed that knowledge about dengue fever, breeding places and method of control are inter-related. Only by good knowledge and practices, dengue fever can be controlled.

3. LITERATURE RELATED TO CHILD TO CHILD APPROACH

Thyaiba (2015) conducted a study to evaluate the child to child approach on physical health activities among 60 samples of school children by non probability convenience sampling technique and the study reveled that the post test level of knowledge and expressed practice was higher than the pre test and there was a positive correlation between knowledge and expresses practice among school children. Therefore, awareness regarding the disease prevention and promotion of health through hygienic practices can be promoted today for tomorrow's generation.

Jeffrey, L.L, and David W. C, (2014) tested a Child-invented health education games for dengue fever. The study's goal was to demonstrate the ability of an 8-year-old child to create educational games for the topic of dengue fever

control. A naturalistic descriptive case study method was employed. The child had two dengue fever educational game creation activities. The study however revealed knowledge gaps and mixed methods for dengue fever related mosquito control. The game constructions were consistent to the child's cognitive level. The case study revealed that a child-centered educational game creation may be both diagnostic for a child's topical knowledge and cognitive development but also serve as a learning tool for children. This activity may also be an informational tool for formative research for dengue fever control.

Leena, K.C., and Sr.Jacinta D'souza (2014) conducted a study to assess the effectiveness of child to child approach on prevention of worm infestation among children of selected primary schools at Mangalore. The study concludes that the proper training and motivation of peers through child to child approach which improves the knowledge level of children on common issue concerning children in an effective way.

Lissmol, M. (2014) performed a qualitative study to assess the effectiveness of child-to-child approach regarding environmental hygiene among school going children. The study concluded that the approach was effective and promote healthy behaviour among school children.

Muneeswari, B. (2014) did a study to assess the effectiveness of programme using child to child approach on knowledge of selected first aid measures among school children at Erode, TamilNadu. The result showed a significant association between post test knowledge with demographic variable like academic performance (17.533) regarding selected first aid measures. The study concluded that about 68.5 % students gained adequate knowledge after teaching programme using child to child approach.

Vijayalakshmi, and Thomas.M.(2014) did a quantitative study to assess effectiveness of child to child approach on knowledge regarding common injuries and its first aid measures among school children through two group pre test post test design.60 samples were selected by simple random sampling technique.The

study findings were that play way teaching method was effective in improving the knowledge of school children.

Gandhi, A., Primalini, N., Raza, S. and Marlais, M. (2013) tested the model of peer assisted child to child learning in pediatrics through an experimental study. The results demonstrated an effective model for students and tutors in building vital skills in pediatrics and exam preparation. Thus reinforceing the holistic positive attributes attainable from peer-assisted learning and such schemes should be incorporated into undergraduate medical curricula for pediatrics to increase student confidence and potentially increase recruitment to pediatrics.

Suzanne, S. et al. (2013) tested the child to child health promotion programme for elementary schools that was based on peer teaching from older to younger school children for the prevention of obesity and eating disorders. The study result showed, compared to control group students, both older and younger intervention students showed an increase in healthy-living knowledge, behavior, and attitude scores and a smaller increase in systolic blood pressure. BMI and weight increase were less in the intervention students from 4^{th} to 7^{th} grade. Thus, the study concluded that knowledge influences the behavior and attitude.

Bold. M., et al. (2012) performed a study approach based on personal and household practices through the child to child approach that serves to prevent major illness in school going children like diarrhea, upper respiratory tract infection, water sanitation and related diseases in Juru Primary School, Rwanda. The study concluded that the child to child approach had believed to be the highly influential method of teaching which had promoted the physical hygiene practices of the children to markedly a higher level.

Ohlin, E. (2012) did a qualitative study to examine the effectiveness of child to child approach among school children's knowledge about malaria in Babati, Tanzania. The results revealed the students to have varying knowledge about the disease and it also revealed that children only have the ability to act as health

change agents, if teachers with the help of the government, the hospital or an NGO are willing to cooperate and provide the students with information.

Carmen, D.M. and Daniel. L.P. (2012) carried out an exploratory study to find out the suggestions of Spanish school pupils in primary education to promote their own health and the health of the people closer to them, through (child to child) children as change agents of their own health. The result concluded that there is a firm basis to consider school pupils as health agents, particularly regarding interventions within the school environment itself. With the support of teachers, it is possible to train school pupils as community health agents, and increase their control over their own health.

Neethi Mozhi, P. (2012) did a quasi experimental study to evaluate the effectiveness of child to child approach on knowledge and expressed practice of dental hygiene among school children at the selected school in Trichy. The result shows that there was no significant relationship between the post-test levels of knowledge and expressed practice with their source of information (χ^2=9.13) on Dental Hygiene. The study concludes that there was strong relationship between knowledge and expressed practice of Dental Hygiene.

Mellanby. A.R, Rees J.B, and Tripp, J.H,. (2010) performed a comparative study to assess the effectiveness of child to child approach through Peer-led and adult-led school health education The evidence from the studies reviewed suggests that peer-led education may be more effective, resulting in greater positive changes in health behavior, than adult-led interventions in children.

Chita, R. (2009) conducted a quasi experimental study to assess the effectiveness of child-to-child programmeme on knowledge regarding prevention of worm infestation in Chennai in children of 10 years. Non-probability convenience sampling techique was used. The findings showed that there was significant increase ($p<0.001$) in the knowledge of the children regarding prevention of worm infestation by the use of child-to-child programmeme.

Vijayakumari (2009) carried out a study to determine the effectiveness of child to child approach on knowledge of HIV/AIDS among adolescents. The experimental group 58.3% had adequate knowledge compared to 0% in the control group. Similarly 41.7% of the cases in the experimental group had moderately adequate knowledge compared to 11.1% in the control group. Nobody in the experimental group had inadequate knowledge. From this study, the child to child approach was found to be effective.

CONCLUSION

Through these studies it could be concluded that there was a wide range of need for this study to be conducted among the school-going children in rural community through innovative methods of teaching like Child-Child approach, which can create a greater impact on health practices and daily lifestyle.

CONCEPTUAL FRAME WORK

This study was based on the Conceptual framework of Rosenstoch (1974) and Becker and Maiman (1975). This framework consists of the following main concepts:

Individual Perception

The individual perception is the process of organizing, interpreting and transforming information from data and memory that gives meaning to one's experience, represents one's image of reality and influence on one's behavior.

In this study, the researcher felt the need to teach the school going children regarding Dengue fever.

Modifying Factors

Modifying factors are those which have impact over the process of organization, interpretation and transformation.

In this study, the modifying factors were the demographic variables such as age, gender, educational status of the parents, economical status and area of residence.

Perceived Threat

Perceived Threat is the detection by instinct or inference rather than by recognized perceptual cues.

In this study, the perceived threat of the researcher is health problem of the school going children due to lack of awareness of dengue fever i.e., breeding places, clinical manifestations, prevention etc,.

Cues to Action

Cues to action are evidence or the stimulus to do a particular action for the perceived threat.

In this study, the cues to action was prevention of dengue fever by adopting clean environment such as removal of stagnant water, prevention of mosquito breeding sites through child to child approach.

Likelihood of action

Likelihood of Action is the process of doing something to attain the goal.

In this study, the likelihood of action includes the following:

Perceived benefits

Perceived benefits are instincts or something that aids in good health or promotes wellbeing.

In this study, the perceived benefits were the optimal health promotion and increased level of knowledge and practice regarding dengue fever in school going children.

Perceived barriers

Perceived barriers are any possible factors or conditions that make someone difficult to make progress or to achieve a goal.

In this study, the perceived barriers were knowledge deficit, lack of interest, lack of motivation, laziness, temperament, etc.

Likelihood of taking health action

The health action is the corrective measure that helps to promote the wellbeing or prevents the illness in an individual.

In this study, the likelihood of health action of 7th standard school going children was to observe the teaching procedure and adopt healthy practices in order to prevent diseases in life through child to child approach.

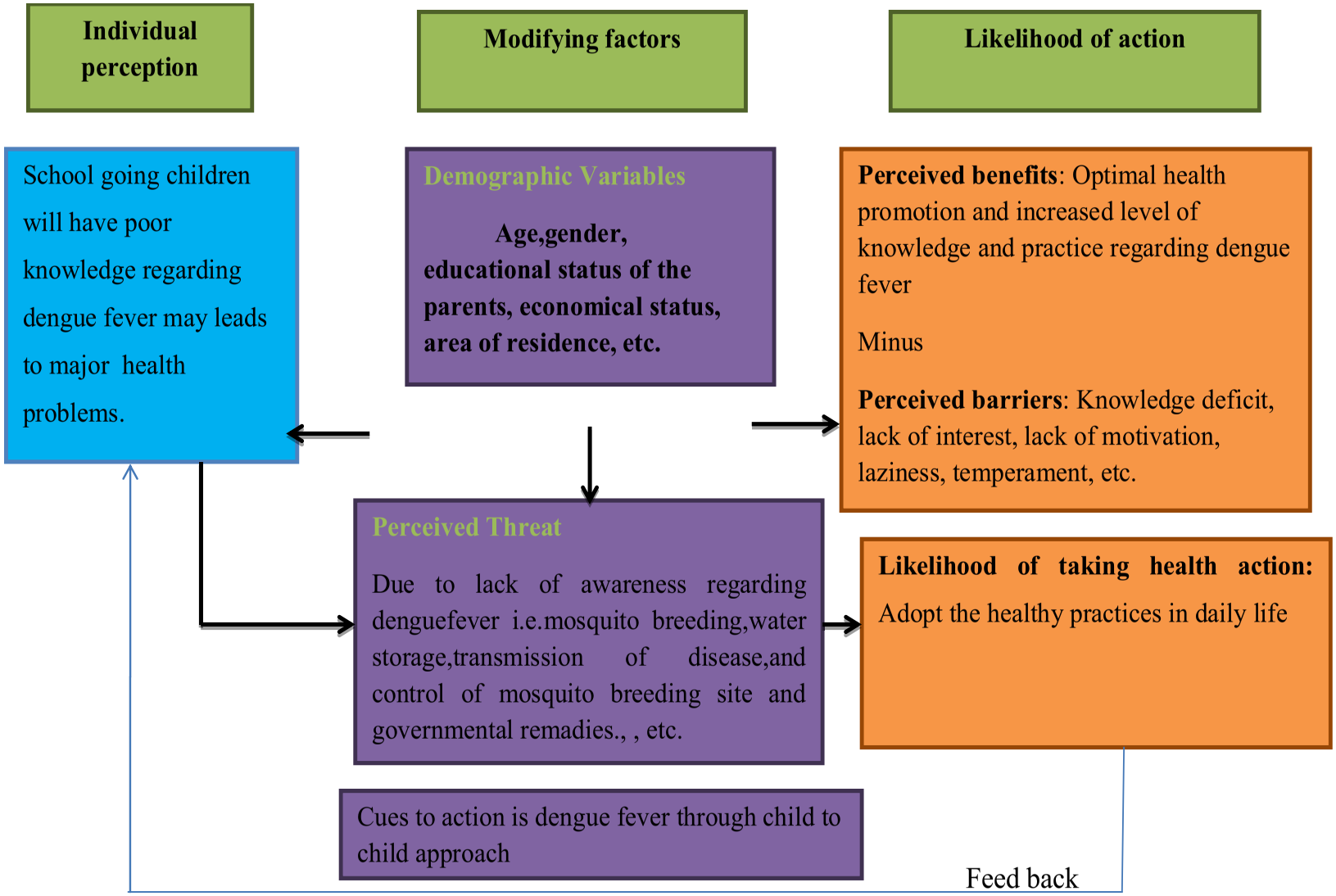

FIGURE 1: CONCEPTUAL FRAMEWORK OF ROSENSTOCH (1974) AND BECKER AND MAIMAN (1975).

CHAPTER – III
RESEARCH METHODOLOGY

INTRODUCTION

Methodology of research refers to the investigations of the ways of obtaining, organising, and analysing data. Methodological studies address the development validation and evaluation of research tools (or) methods.

Polit (2004)

The chapter deals with research approach, research design, setting of the study, population, sample size, sampling technique, criteria for sample selection, development and description of the tool, validity and reliability, pilot study, data collection procedure, data analysis and protection of human rights.

RESEARCH APPROACH

The research approach used for this study was "Evaluative – Approach"

RESEARCH DESIGN

The research design for this study was quasi- experimental non-equivalent control group pre test post test design.

E O1 X O 2

C O3 O 4

E - Experimental Group.

O1 - Pre-test level of knowledge and expressed practice in experimental group.

X - Health education on dengue fever through child to child approach using change agent.

O2 - Post-test level of knowledge and expressed practice in experimental group.

C - Control Group.

O3 - Pre test level of knowledge and expressed practice in Control group.

O4 - Post test level of knowledge and expressed practice in Control group.

SETTING OF THE STUDY

The experimental group of students was selected from Government Middle School, Ooliyur, Trichy. It is located 10 kms away from Dr.G.Sakunthala College of Nursing, it had total strength of 150 students. The school had facilities like adequate light and well ventilated classrooms, clean environment, separate toilets for boys and girls and play ground facility and computer and LCD facilities are available. The investigator has taken 30 students as experimental group study samples.

The control group students was selected from Government High School, Avoor, Trichy. It was located 15 kms away from Dr.G.Sakunthala College of Nursing, it had total strength of 250 students. The school had facilities like adequate lighted and ventilated class rooms, clean environment, separate toilets for both boys and girls, play ground facility and computer room with sufficient staff. The investigator has taken 30 students as control group study samples.

POPULATION

The study population was school going children studying 7^{th} standard.

SAMPLE

The sample of the study consisted of school children who were studying in 7^{th} standard at Government Middle School, Ooliyur, Trichy and Government High School, Avoor, Trichy.

SAMPLE SIZE

The sample size was 60 school children, 30 students in experimental group and 30 students in control group.

SAMPLING TECHNIQUE

Non-probability convenience sampling technique was used for selection of samples.

CRITERIA FOR SAMPLE SELECTION

INCLUSION CRITERIA

1. School children who were studying in the 7th standard from selected school
2. School children who were present during data collection.
3. Change agents were first six top scorers of the selected section as per the teacher's opinion.
4. Peer groups were the students available in that section, other than change agents.

EXCLUSION CRITERIA

1. Children who were absent during data collection.
2. Children who were sick during data collection.

RESEARCH TECHNIQUE

In this study, self administered knowledge and expressed practice questionnaire were used to assess the knowledge and expressed practice of school children through child to child approach regarding dengue fever among 7th standard school children in Government Schools, Trichy.

DESCRIPTION OF THE TOOL

Part – I

It consists of demographic variables of the school children

Part – II

It consists of 25 knowledge questions regarding dengue fever.

Part – III

It consists of 10 expressed practice questionnaire regarding dengue fever.

SCORING PROCEDURE

The total score for multiple choice questions on knowledge related to dengue fever" was 25.A score of one mark was awarded for every correct answer and zero mark was given for a wrong answer.

The score was ranged as follows:

Level of Knowledge	Score
➢ Adequate knowledge	76 – 100%
➢ Moderately adequate	51 – 75%
➢ Inadequate knowledge	less than 50%.

The total score for expressed practice questions related to Dengue fever was 10.A score of one mark was awarded for every positive answer and zero mark was given for a negative answer.

Level of expressed practice	Score
Favourable practice	76 -100%
Moderately favourable	51- 75%
Unfavourable	0 - 50%

TESTING OF THE TOOL

VALIDITY

The tool was evaluated by 5 experts who were requested to give their valuable suggestion about the content area, relevancy, clarity and appropriate need of items. Minor modification was done according to their suggestions.

RELIABILITY

The reliability of the tool was established by assessing the quality and adequacy of the tool using split half method. The reliability of the knowledge questionnaire was r = 0.86. The reliability of the expressed practice questionnaire was r = 0.78. Hence the tool was reliable.

PILOT STUDY

After obtaining the formal administrative approval, the pilot study was carried out from 15.6.15 to 26.6.15 with 10 school children (5-control group, 5-experimental group). control group participants were selected from Government High school, Jeeyapuram, Trichy. Experimental group participants were selected from Government High school, Mutharasanallor, Trichy. Health education on dengue fever was imparted to their peer group through child to child approach and there was no modification done in the study and the pilot sample was excluded from the main sample for the data collection. The data collection was amenable to statistical analysis and thus the study was found to be feasible.

DATA COLLECTION PROCEDURE

The period of data collection was held from 20.7.15 to 21.8.15. Before starting the study the researcher was obtained a formal permission from the Principal, Head Of Department pediatrics and research committee members of Dr.G.Sakunthala College Of Nursing. Prior to data collection the investigator obtained formal permission from headmasters of the respective schools to conduct the study. After the permission, list of change agents were prepared with the help

of the class teacher a day prior to data collection. The nature and purpose of the study was explained to the students. The researcher was initially obtained an oral consent from each student and the knowledge and expressed practice questionnaire were administered to each samples including demographic data. Without disturbing the study subjects, the change agents were trained for the initiation of child to child approach programme. Three days after training, post-test was given to the change agents to assess whether they have acquired adequate knowledge. Retraining was given in case of inadequate knowledge observed in change agents. On fifteenth day, the students were allotted to the change agents by convenience method for the initiation of program. Then, the knowledge on dengue fever was imparted through the change agents to their peer group in 6 sessions. Each teaching session lasted for 30 minutes and discussion for 10 minutes. There were five students for each change agent. Overall supervision was done by the researcher. Post-test was administered after ten days. In control group, the pretest and post-test was conducted without intervention. The researcher was given health education after the post-test. Samples were selected by non-probability convenience sampling technique and quasi experimental design was used.

PLAN OF DATA ANALYSIS

All the analyses were done by SPSS 20th version. The collected data was tabulated to represent the findings of the study. Descriptive statistics and inferential statistics were used to analyze the data findings.

Percentage and frequency distribution were used to analyze the demographic variables. Mean, Standard deviation and Paired-t test were used to compare the pre-test scores and post test scores in control group and experimental group. Independent t test was used to find out the difference between post-test mean score of the experimental and control group. Correlation co-efficient was used to determine the relationship between post-test level of knowledge and expressed practice. (Pearson's correlation).Chi-square was used to find out the association

between selected demographic variables with pre-test level of knowledge and expressed practice.

ETHICAL CONSIDERATION

The research proposal was approved by the ethical committee of the institution. Prior to the Pilot study, permission was obtained from the Principal and Head of the Child Health Nursing Department and the investigator obtained formal permission from the Head master of the respective school to conduct the study. A oral consent was obtained orally from each participants of the study before starting the data collection. Assurance was given to the subject that confidentiality of each individual will be maintained. The children were informed that they were free to withdraw from the study at any time. Purpose of the study was explained to the selected school teachers.

CHAPTER – IV

ANALYSIS AND INTERPRETATION OF DATA

This chapter deals with the description of the sample, analysis and interpretation of data to assess the effectiveness of child to child approach on knowledge and expressed practice regarding dengue fever among school going children. The obtained data have been classified, grouped and analyzed using descriptive and inferential statistics based on the objectives of the study.

OBJECTIVES OF THE STUDY

1. To evaluate the existing level of knowledge and expressed practice regarding dengue fever among school going children in control group and experimental group.
2. To evaluate the effectiveness of child to child approach on knowledge and expressed practice regarding dengue fever among school going children in experimental group.
3. To compare the mean post test level of knowledge and expressed practice regarding dengue fever among school going children in control group and experimental group.
4. To correlate the post test level of knowledge with expressed practice regarding dengue fever among school going children in control group and experimental group.
5. To determine the association between selected demographic variables with pretest knowledge score regarding dengue fever among school going children in control group and experimental group.
6. To determine the association between selected demographic variables with pretest expressed practice score regarding dengue fever among school going children in control group and experimental group.

ORGANIZATION OF FINDINGS

The analysis of data has been organized and presented under the following headings.

SECTION-I : Frequency and percentage distribution of samples according to their demographic variables

SECTION-II : Percentage distribution of knowledge scores of school going children in control group and experimental group.

SECTION-III: Percentage distribution of Expressed practice scores of school going children in control group and experimental group.

SECTION-IV: Comparison of mean scores between pre-test and post-test level of knowledge and expressed practice in control group and experimental group.

SECTION-V : Comparison of mean post-test level of knowledge and expressed practice in control group and experimental group.

SECTION-VI: Correlation between the post-test level of knowledge and expressed practice in control group and experimental group.

SECTION-VII: Association between selected demographic variables with pre-test level of knowledge in control group and experimental group.

SECTION-VIII: Association between selected demographic variables with pre-test level of expressed practice in control group and experimental group.

SECTION I

This section deals with demographic variables of the sample

Table 1

Frequency and percentage distribution of sample according to demographic variables

N = 60

S. No	Demographic characteristics	Control Group (n = 30)		Experimental Group (n = 30)	
		Frequency (n)	Percentage %	Frequency (n)	Percentage %
1.	Age				
	a.11years	10	33.3	6	20.0
	b.12years	20	66.7	24	80.0
2.	Sex				
	a. Male	13	43.3	14	46.7
	b. Female	17	56.7	16	53.3
3.	Occupation of the parents				
	a.Government job	2	6.7	1	3.3
	b.Private sector	2	6.7	5	16.7
	c.Coolie	25	83.3	20	66.7
	d.Self employment	1	3.3	4	13.3
4.	Family income				
	a.Rs.5000-10000	23	76.7	25	83.3
	b.Rs.10,001-15,000	7	23.3	4	13.3
	c. Rs.15,000and above	0	0	1	3.3
5.	Education of the parents				
	a.Illiterate	6	20.0	11	36.7
	b.Up to higher secondary	23	76.7	19	63.3
	c.Graduate	1	3.3	0	0

6.	Religion				
	a.Hindu	22	73.3	14	46.7
	b.Christian	8	26.7	16	53.3
	c.Muslim	0	0	0	0
7.	Place of residence				
	a.Rural	28	93.3	28	93.3
	b.Urban	2	6.7	2	6.7
8.	Source of drinking water				
	a. Corporation water	8	26.7	19	63.3
	b. Bore water	15	50.0	11	36.7
	c. Well water	7	23.3	0	0
9.	Whether your Family members affected with dengue fever?				
	a. Yes	0	0	0	0
	b. No	30	100.0	30	100.0
10.	Previous source of information about dengue				
	a.Health professionals	3	10.0	3	10
	b.Radio/T.V/posters	8	26.7	5	16.6
	c.Friends	1	3.3	6	20.0
	d.Unknown	18	60.0	16	53.3

Table-1 shows the frequency and percentage distribution of demographic variables.

In that majority of children 20 (66.6%) in control group and 24 (80%) in experimental group belong to age of 12 years. Almost equal number of the children, 17 (56.7%) in control group and 16 (53.3%) in experimental group were females.

Majority of the parents 25 (83.3%) in control group and 20 (66.7%) in experimental group were coolie workers.

Majority of the children, 23 (76.7%) in control group and 25 (83.3%) in experimental group were having family income between Rs.5000 – 10000.

Most of the parents 23 (76.7%) in control group and 19 (63.3%) in experimental group had their education upto Higher Secondary.

Majority of the children 22 (73.3%) in control group belonged to Hindu religion and 53.3% (16) in experimental group belongs to Christians.

Almost equal number of children 28 (93.3%) in control group and in experimental group were residing in rural area.

Majority of the houses 15 (50%) in control group were using bore water and 19 (63.3%) in experimental group were using corporation water.

All the children, 30(100%) in control group and in experimental group had no history of dengue fever in their family.

Almost equal number of children 18 (60%) in control group and 16 (53.3%) in experimental group had no previous knowledge of dengue fever.

SECTION - II

This section deals with the knowledge scores of school going children in control group and experimental group.

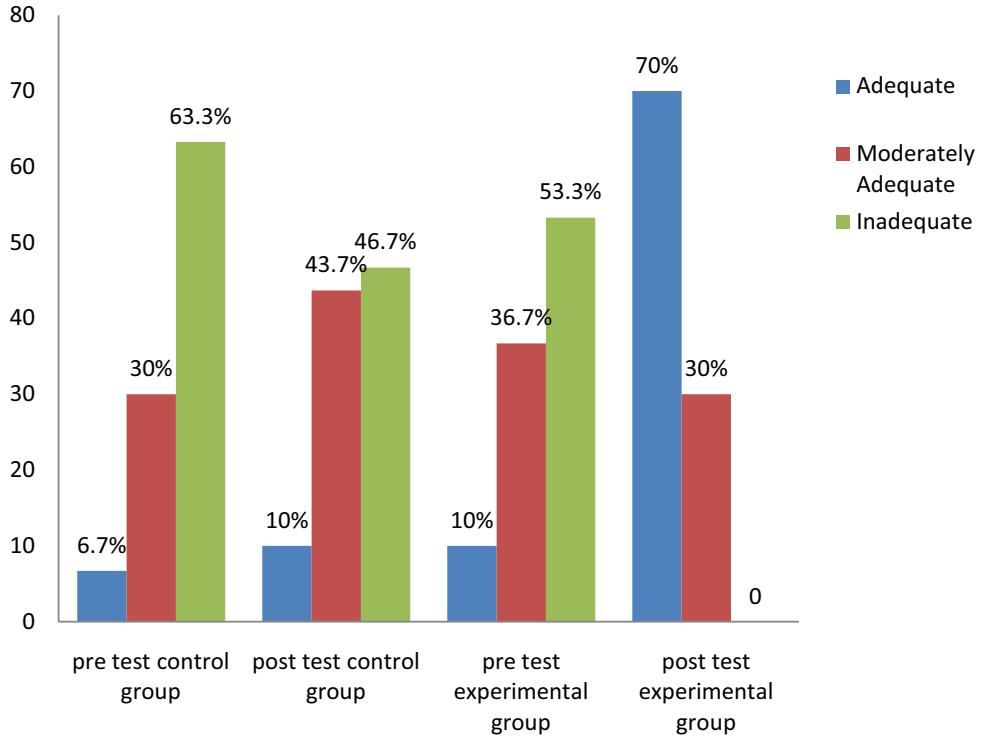

Figure 2 The Percentage distribution of knowledge scores of school going children in control group and experimental group

.

SECTION – III

This section deals with the expressed Practice scores of school going children in control group and experimental group

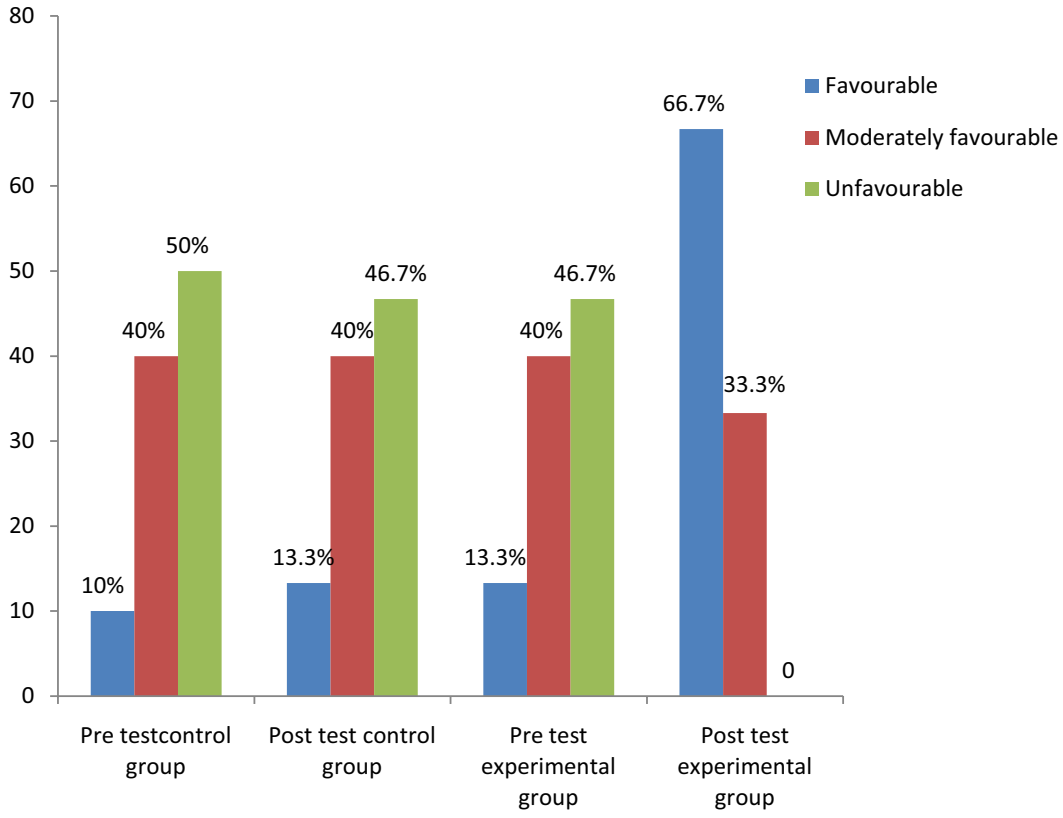

Figure – 3 The Percentage distributions of expressed practice scores of school going children in control group and experimental group

SECTION - IV

This section deals with the comparison of mean scores between pre-test and post-test among control group and experimental group.

Table -2

Comparison of mean scores between pre test and post test level of knowledge and expressed practice regarding dengue fever among school going children in control and experimental group.

Group	Pre-test		Post-test		Mean Difference	Paired ' t ' test
	Mean	SD	Mean	SD		
Control Group						
Knowledge	10.97	4.183	13.36	4.020	2.4	2.971
Expressed Practice	4.90	1.995	9.60	2.283	1.03	1.000
Experimental Group						
Knowledge	10.43	3.363	19.53	3.383	9.1	10.846**
Expressed Practice	9.00	2.084	12.50	2.255	3.50	9.290**

** at $p<0.01$

Table-2 shows the comparison of mean scores between pre-test and post-test knowledge and expressed practice in experimental group. The mean post-test knowledge 19.53 was higher than the pre-test mean 10.43 with the standard deviation of (3.363) and the obtained 't' value ($t=10.846$) was significant at $p<0.01$. It also describes the comparison of mean scores between pre-test and post-test expressed practice in experimental group. The mean post-test expressed practice 12.50 was higher than the pre-test mean 9.00 with the standard deviation 2.255 and the obtained 't' value ($t=9.290$) was significant at $p<0.01$. So the hypothesis1 (H1) was accepted.

SECTION V

This section deals with the comparison of mean scores between post test Knowledge and Expressed Practice in control and experimental group.

Table - 3

Comparison of mean post test level of knowledge and Expressed Practice score between control group and experimental group.

Group	Sample (n)	Posttest mean	Posttest SD	Independent 't' test
Knowledge				
Control Group	30	13.36	4.020	6.998**
Experimental Group	30	19.53	3.383	
Expressed Practice				
Control Group	30	9.60	2.283	
Experimental Group	30	12.50	2.255	5.949**

** at P<0.01

Table 3 shows comparison of mean post-test knowledge and expressed practice in control group and experimental group. The calculated 't' value was higher than the table value (2.66) which implies that there was a significant increase at p< 0.01 level. So the hypothesis 2 (H2) was accepted.

SECTION VI

This section deals with correlation between the post test level of knowledge and expressed practice in control group and experimental group.

Table - 4

Correlation between post-test knowledge and expressed practice.

Post-test	**Correlation**
Control Group	
Knowledge	0.269
Expressed Practice	
Experimental Group	
Knowledge	0.956**
Expressed Practice	

Table 4 describes correlation between knowledge and expressed practice of post-test. The investigator found that there was a significant relationship (0.956**) between the post-test level of knowledge and expressed practice in experimental group. So, the hypothesis 3(H3) was accepted.

SECTION VII

This section deals Association between selected demographic variables with pre test level of knowledge in control group and experimental group

Table-5

Demographic Variables	Control Group (n = 30)				Experimental Group (n = 30)			
	Adequate	Moderately adequate	Inadequate	Chi-square	Adequate	Moderately adequate	Inadequate	Chi-square
1. Age								
a.11years	1	3	6	0.276	2	2	2	4.669
b.12years	1	6	13		1	9	14	
2. Sex								
a. Male	1	2	10	2.339	1	5	8	0.292
b. Female	1	7	9		2	6	8	
3. Occupation of the parents								
a.government job	0	0	2		1	0	0	
b.Private sector	0	1	1		0	1	4	
c.Collie	2	8	15	2.337	1	8	11	12.812*
d.self employment	0	0	1		1	2	1	
4. Family income								
a.5000-10000	1	7	15		2	8	15	
b.10001-15000	1	2	4	0.856	0	3	1	12.062*
c.above15000	0	0	0		1	0	0	
5. Education of the parent								
a.Illitarte	0	2	4		0	6	5	
b.Upto highersecondary	2	6	15	3.038	3	5	11	3.453
c.Graduate	0	1	0		0	0	0	
6.Religion								
a.Hindu	1	7	14		2	5	7	
b.Christian	1	2	5	0.649	1	6	9	0.543
c.Muslim	0	0	0		0	0	0	

7. Place of residence								
a. Rural	2	8	18	0.489	3	11	14	1.875
b. Urban	0	1	1		0	0	2	
8. Source of drinking water								
a. Corporation water	1	2	5	1.452	3	6	10	2.107
b. Bore water	1	4	10		0	5	6	
c.Well water	0	3	4		0	0	0	
9. Is your Family members affected with dengue fever?								
a. Yes	0	0	0	0	0	0	0	0
b. No	2	9	19		3	11	16	
10. Source of information about dengue								
a. Health professionals	1	0	2	6.603	0	3	0	9.771*
b. TV / Radio / Posters	0	4	4		0	1	7	
c. Friends	0	0	1		0	0	0	
d. Unknown	1	5	12		3	7	9	

* at $p< 0.05$ level

Table -5 shows the association between demographic variables with pre-test knowledge scores. The calculcated chi square values imply that there was no association between select demographic variables with pre-test level of knowledge in control group and there was a significant association between selected demographic variables such as occupation of the parents ($\chi 2 = 12.812^*$), income of the parents($\chi 2 = 12.602^*$) and source of information ($\chi 2 = 9.771^*$) with pre test level of knowledge in experimental group. So the hypothesis 4 (H4) was rejecetd.

SECTION- VIII

This section deals association between selected demographic variables with pre test level of expressed practice in control group and experimental group.

Table-6

Demographic Variables	Control Group (n = 30)				Experimental Group (n = 30)			
	favourable practice	moderately favourable	Un favourable practice	Chi-square	favourable practice	moderately favourable	Un favourabe practice	Chi-square
1. Age								
a.11years	0	4	6	1.800	0	6	0	11.250*
b.12years	3	8	9		4	6	14	
2. Sex								
a. Male	0	5	8		2	6	6	0.153
b. Female	3	7	7	2.919	2	6	8	
3. Occupation of the parents								
a.government job	0	0	1		0	0	1	
b.Private sector	1	1	3	4.214	1	1	3	4.214
c.Collie	3	8	9		3	8	9	
d.Self employment	0	3	1		0	3	1	
4. Family income								
a.5000-10000	2	10	11		4	9	12	
b.10001-15000	1	2	4	0.559	0	2	2	2.386
c.above15000	0	0	0		0	1	0	
5. Education of the parent								
a.Illitarte	0	4	2		0	4	2	
b. Upto highersecondary	3	7	13	4.435	3	8	12	2.368
c.Graduate	0	1	0		0	1	0	
6. Religion								
a.Hindu	2	10	10	1.023	1	5	8	
b.Christian	1	2	5		3	7	6	1.492
c.Muslim	0	0	0		0	0	0	
7. Place of residence								
a. rural	3	11	14	3.268	3	12	13	3.023
b. urban	0	1	1		1	0	1	

8. Source of drinking water								
a. Corporation water	0	3	5	4.048	4	8	7	3.445
b. Bore water	3	5	7		0	4	7	
c.Well water	0	4	3		0	0	0	
9. Is your Family members affected with dengue fever?								
a. Yes	0	0	0	0	0	0	0	0
b. No	3	12	15		4	12	14	
10. Source of information about dengue								
a. Health professionals	1	1	1	3.861	0	3	0	5.519
b. TV / Radio / Posters	0	4	4		1	2	5	
c. Friends	0	0	1		0	0	0	
d. Unknown	2	7	9		3	7	9	

* at $p < 0.05$ levels

Table-6 The table shows the association between selected demographic variables with pre-test expressed practice scores. The calculcated chi square values implies that there was no significant association between select demographic variables with pre-test level of knowledge in control group and there was a significant association between selected demographic variables only in age of school going childern ($\chi 2 = 11.250$) with pre test expressed practice score in experimental group. Therefore the hypothesis 5 (H5) was rejected.

CHAPTER V
DISCUSSION

This chapter deals with the findings of the study.The study was done to evaluate the effectiveness of child to child approach on knowledge and expressed practice regarding dengue fever among school going children at selected schools, Trichy.

A quasi - experimental non equivalent pre test post test control group design was used to conduct the study, knowledge and expressed practice was assessed by using structured questionnaire. Non Probability convenience sampling technique was used. The study sample consisted of 60 school children, 30 control group and 30 experimental group studying in 7th standard. Using the above tool, data were collected and analyzed. The study findings revealed the following.

The aim of the study was to evaluate the effectiveness of child to child approach on knowledge and expressed practice regarding dengue fever among school going children at selected school, Trichy.

Among the demographic variables majority of children 20 (66.6%) in control group and 24 (80%) in experimental group belongs to age of 12 years. Almost equal number of the children 17 (56.7%) in control group and 16 (53.3%) in experimental group were females. Majority of the parents 25 (83.3%) in control group and 20 (66.7%) in experimental group were coolie workers. Majority of the children, 23 (76.7%) in control group and 25 (83.3%) in experimental group were having family income between Rs.5000 – 10,000. Most of the parents,23 (76.7%) in control group and19 (63.3%) in experimental group had their education upto Higher Secondary. Majority of the children 22 (73.3%) in control group belongs to Hindu religion and 16 (53.3%) in experimental group belongs to Christians. Almost equal number of children 28 (93.3%) in control group and in experimental group were residing in rural area. Majority of the houses 15 (50%) in control group were using bore water and in experimental group 19 (63.3%) were using corporation

water. All the children, 30 (100%) in control group and in experimental group had no history of dengue fever in their family. Almost equal number of children 18 (60%) in control group and16 (53.3%) in experimental group had no previous knowledge of dengue fever.

The reason for this findings were most of the children parents were coolie workers who were living in rural area and did not have an adequate knowledge regarding breeding places of dengue mosquito and in addition there was no family history of dengue fever. This findings was supported by Murugan.S.(2008).

The first objective of the study was to evaluate the existing level of knowledge and expressed practice regarding dengue fever among school going children in control group and experimental group.

The results of this study showed that in control group 19(63.3%) of the children had inadequate knowledge, 9(30.0%) had moderately adequate knowledge and 2(6.7%) had adequate knowledge. In experimental group16(53.3%) had inadequate knowledge 11(36.7%) had moderately adequate knowledge and 3(10%) had adequate knowledge.

The level of expressed practice during pre-test was unfavorable among most of the subjects because of unawareness. In control group 15(50%) had unfavorable practice and 12(40%) had moderately favorable practice and 3(10%) had favorable practice and in experimental group, 14(46.7 %) of children had unfavorable practice, 12(40%) had moderately favorable, 4(13.3%) had favorable practice The result of the study shows that the children had lack of knowledge and they were not aware of the consequences of dengue fever as the family members were not affected with dengue fever. So the investigator planned to provide health education through child to child approach to insist the importance regarding dengue fever in various aspects such as; causes, mode of transmission, breeding places, types,

nature of mosquito, clinical manifestations, complications, control and prevention of mosquito bite. The study was supported by Thyaiba (2015).

The second objective of the study was to evaluate the effectiveness of child to child approach on knowledge and expressed practice regarding dengue fever among school going children in experimental group.

In this present study, the mean post-test knowledge19.53 and expressed practice 12.50 regarding dengue fever was significantly higher than the mean pre-test knowledge10.43 and expressed practice 9.00 of school children who received child to child approach and the calculated ' t' value was higher than the table value at $p< 0.01$ level. The reason for the result was during the period of child to child approach, children were keenly interested and they asked questions and clarified their doubts. Interaction was very good. It was useful for the children to handle it in their day to day life. After a child to child approach there was a significant increase in knowledge in the future. The study findings was supported by Hasanain F G, Mohamed. H I and Mohamad R.A (2013).Hence the Hypothesis 1 (H1) was accepted.

The third objective of the study was to compare the post-test level of knowledge with expressed practice regarding dengue fever among school going children in control group and experimental group.

The mean post-test knowledge (19.53) and expressed practice(12.50) score regarding dengue fever was significantly higher in experimental group of school children who received child to child approach than the control group mean post test knowledge (13.36)and expressed practice(9.60).The calculated t value was significantly higher than the table value at $p <0.01$ level. The investigator concluded that the child–child approach was effective in improving the knowledge

of school children regarding dengue fever among experimental group. The study was supported by Neethi Mozhi P (2012) So hypothesis 2 (H2) was accepted.

The fourth objective of the study was to correlate the post-test level of knowledge with expressed practice regarding dengue fever among school going children in control group and experimental group.

In control group the score was 0.269 and experimental group the score was 0.956**. There was a significant relationship between the knowledge and expressed practice regarding dengue fever among school children. The result insists that through proper training of peers and motivation, through health education which improves the knowledge level of children on common issue. The study finding was contradicted by Wan Rozita et al (2013).Therefore the hypothesis 3 (H3) was accepted.

The fifth objective of the study was to determine the association between selected demographic variables with pre-test level of knowledge regarding dengue fever among school going children in control group and experimental group.

The study findings revealed that there was no significant association between selected demographic variables with pretest level of knowledge in control group and there was a significant association between selected demographic variable such as occupation of the parents ($\chi 2$= 12.812*) income of the parents($\chi 2$=12.062*) and source of information about dengue with pretest level of knowledge in experimental group. The study findings was supported by Karani Magutah ,Tun-Linn Thein ,Naoko Shibuya and Sangchom Siripanich (2014) So, the hypothesis 4 (H4) was rejected.

The sixth objective was to determine the association between selected demographic variables with pre-test level of expressed practice regarding dengue fever among school going children in control group and experimental group.

The study findings revealed that there was no significant association between select demographic variables with pre-test level of expressed practice in control group and there was a significant association between selected demographic variables such as age ($\chi 2$ =11.250*) with pre test level of expressed practice in experimental group. The study finding was contradicted by Sandeep K.R. , Divya Shettigar and Suma Jayappa (2014)Therefore the hypothesis 5 (H5) was rejected.

CHAPTER-VI
SUMMARY, CONCLUSION, IMPLICATION AND RECOMMENDATION

This chapter presents the summary of the study conclusion, the implications in different areas like nursing practice, nursing education, nursing research, nursing administration, limitations and recommendations for the further study.

SUMMARY OF THE STUDY

A quasi experimental study to evaluate the effectiveness of child to child approach on knowledge and expressed practice regarding dengue fever among school going children at selected schools, Trichy.

THE FOLLOWING OBJECTIVES WERE SET FOR THE STUDY

1. To evaluate the existing level of knowledge and expressed practice regarding dengue fever among school going children in control group and experimental group.
2. To evaluate the effectiveness of child to child approach on knowledge and expressed practice regarding dengue fever among school going children in experimental group.
3. To compare the mean post test level of knowledge and expressed practice regarding dengue fever among school going children in control group and experimental group.
4. To correlate the post test level of knowledge with expressed practice regarding dengue fever among school going children in control group and experimental group.
5. To determine the association between selected demographic variables with pre-test level of knowledge regarding dengue fever among school going children in control group and experimental group.

6. To determine the association between selected demographic variables with pre-test level of expressed practice regarding dengue fever among school going children in control group and experimental group.

The conceptual model of the study was based on Rosen stocks and Becker's health belief model. The study was conducted by using quasi experimental design non-equivalent control group pre-test post-test design. The sample size used for the study was 60 school children 30 in control group and 30 in experimental group of 7th standard school students. Non Probability convenient sampling techniques were used to select the samples. The instruments used for data collection was self-administered knowledge and expressed practice questionnaire regarding dengue fever.

The data was analyzed and interpreted in terms of objectives and research hypothesis. Descriptive statistics (frequency, percentage, mean and standard deviation) inferential statistics (paired t-test, independent t-test, correlation co-efficient and chi-square) were used to test the hypothesis.

MAJOR FINDINGS OF THE STUDY

1. Majority of children in control group and in experimental group belongs to age of 12 years.
2. Almost equal number of the children in control group and in experimental group were females.
3. Majority of the parents in control group and in experimental group were coolie workers.
4. Majority of the children in control group and in experimental group were having family income between Rs.5000 – Rs.10000.
5. Most of the parents in control group and in experimental group had their education upto Higher Secondary.
6. Majority of the children in control group belongs to Hindu religion and in experimental group belongs to Christians.

7. Majority of children in control group and in experimental group were residing in rural area.
8. Majority of the houses in control group were using bore water and in experimental group were using corporation water.
9. All the children in control group and in experimental group had no history of dengue fever in their family.
10. Most of the children in control group and in experimental group had no previous knowledge of dengue fever.
11. Majority of the children had inadequate knowledge and expressed practice regarding dengue fever in both control group and experimental group
12. In this study the post test knowledge and expressed practice score was higher than the pre test knowledge and expressed practice score in experimental group after child – child approach..
13. In this present study, the mean posttest knowledge and expressed practice score in experimental group was higher than the mean pre-test knowledge and expressed practice score and the calculated 't' value was higher than the table value significant at $p< 0.01$ level.
14. In this present study the mean post-test knowledge and expressed practice score regarding dengue fever was significantly higher in experimental group of school children who received child- child approach than control group and the calculated 't' value was higher than the table value significant at $p< 0.01$ level.
15. In this present study, there was a significant positive correlation between post-test knowledge and post-test expressed practice score in experimental group significant at $p<0.01$.
16. There was no significant association between selected demographic variables with pretest knowledge score in control group and in experimental group there was a significant association between selected demographic variables at $p< 0.05$ level.

17. There was no significant association between selected demographic variables with pretest expressed practice in control group and there was a significant association between selected demographic variable with pretest expressed practice in experimental group at $p< 0.05$ level.

CONCLUSION

This study brought out the following conclusions.

Lack of awareness and unhealthy practices create a serious public health threat to school children. School health is an important intervention as a great deal of research tells us that schools can have a major effect on children's health by teaching them about health and promoting healthy behaviours.

Promotion of healthy practices in schools by health service through innovative method of teaching such as play way method, child to child method, and kinder garden learning could be an effective means of communication regarding health issues among children.

Imparting the concepts of child to child approach to nursing students and its utilization to give health education in the schools, hospitals, and community could be used for disseminating the health messages among children. Therefore, awareness regarding the disease prevention and promotion of health through healthy practices can be promoted today and for the future generations.

IMPLICATIONS

The findings of the study have several implications on nursing practice, nursing education, nursing research and nursing administration.

NURSING PRACTICE

Numerous implications can be drawn from the present study for practice which promotes and creates a new dimension to nursing profession.The study findings can be helpful to initiate child to child approach activities in school services and in the community, based on this idea other change agent such as

siblings, elders and child's mother can be taught and utilized effectively. Nurses can schedule and plan the teaching programmes to educate the students and it must be interesting, interactive and more effective with the help of audio – visual aids. This method will help the students to understand the idea easily because the students are learning from their peer group.

NURSING EDUCATION

The practical knowledge of the nurse depends upon the education they receive. So the nursing education should prepare the nurse to realize their responsibility as nurse educator has to render health services in various settings. Nursing students must be reoriented to the primary health care approach because this enables nurses to be well prepared to assist clients and community at large to develop their self – care potentialities.

Nursing curriculum should provide opportunities to the students to plan and conduct a health service programme for clients in various settings like school, family community, industry, hospital and primary health Centre. Participation of health awareness programmes should be emphasized during the school life of the child.

Nursing personnel working in various health care setting should be given in-service education regarding physical health assessment and environmental sanitation. So that they can identify plan and conduct health programmes for different strata of population in the community.

The present study would help nursing students to understand the advantages and importance of child to child approach which is more effective in imparting knowledge among school children. Students should be given experience to practice child to child approach by the educatar institution. Curriculum should integrate this type of activity in all areas of nursing. Nursing should emphasize more innovative methods of teaching through varied approaches of health education.

NURSING RESEARCH

The finding of the study can be utilized by a nursing researcher in future to conduct extensive studies to identify/assess the knowledge, attitude and practices regarding dengue fever as it is a re–emerging disease in india.There is a need of nursing research in the area of client education. Health related studies need to be concentrated for behaviour modification of people by developing unique health education programme. Other aspects of health care such as prevention of infective diseases can also be considered in the future.

NURSING ADMINISTRATION

Nurse as an administrator has a role in planning the policies for imparting health information to the target population. The present study will help the nursing administrator or authorities to recognize the need for conducting in service education and continuous nursing education for imparting health information to nursing personnels through different teaching methods which would benefit students and also the community.

A timely health education can be organized which plays a major role in educating the people about dengue fever. They should arrange mass school health programmes. Nurse administer should actively involved in initiating awareness programmes that will be help to bring down the children mortality rate.

LIMITATION

1. The limitation of this study is generalization of the findings that cannot be done to convenience sampling method.
2. There was no control on certain extraneous variables like sources of information after pretest.

RECOMMENDATIONS

On the basis of study findings, the following recommendations were given.

1. A quasi experimental study to evaluate the effectiveness regarding dengue fever can be conducted in large group and in various settings.
2. A true experimental study to evaluate the effectiveness of IEC package on knowledge and practice regarding dengue fever among school children can be conducted.
3. A comparative study can be conducted to find out similarities and differences in knowledge and practices between urban and rural school children.
4. Similar study can be conducted by other methods like role play, puppet show, kinder garden method, storytelling and demonstration, etc.
5. Similar study can be conducted among general population.

REFERENCE

Ahmad, I. et al. (2010). *Knowledge, Awareness and Practices Regarding Dengue Fever among the Adult Population of Dengue*, Karatchi, Pakistan.

Ashok,K.(2010). *A study on community based on community knowledge and behavior following epidemics in Chennai*, India.

Basavanthappa,B.T. (2006), *Community Health Nursing, 2nd edition*, jaypee publishers, New Delhi.

Begonia, C. Yboa, Leodoro, J. Labrague, (2013), *A evaluate the knowledge and practices regarding dengue infections among rural residents* in Samar Province, Philippines, *American Journal of Public Health Research*.

Bharathi,.N., Karthikayan, S. and Ramakrishnan ,(2015). *Prevalence and dengue risk factors of dengue vector investation in schools at Dindigul, Tamilnadu, India*, International Journal of fauna and biological studies,vol-2,issue 2

Begonia, C.Y., Leodoro, J.L. (2013). *A study to evaluate the knowledge and practices regarding dengue infections among rural residents in Samar Province*, Philippines.

Bold.M. et al. (2012). *A study approach based on personal and household practices through the child to child approach at Juru Primary School*, Rwanda.

Borges,(2013). A *study to evaluate the effect of Tab. chloroquine in patients with dengue*, Indian Journal of Peadiatrics.

Bhuvaneswari, C.K., Raja, R.S., Arunagiri, K. and Mohana, S. (2011). *A Prospective descriptive study on suspected dengue patients attending Thanjavur medical college and Trichy hospital to define magnitude of dengue burden ,Indian journal of Medical Research.*

Child to Child (2005), *Our child protection policy*, India.

Child to Child (2007), *Literature Review Final*, London.

Child to Child Approach (2013), *Path to Success*, Pakistan.

Chitra, R. (2009). *Assessing effectiveness of Child to Child programme regarding worm infestation,* Health Action, India.

Denise, F.P and Bernadette, P.H. (1999), *Nursing research principles and methods,* Lippincot Williams & Williams.

Dutta,P.(2014). *Pediatric Nursing*, 3rd edition, jaypee brothers Medical publishers, New Delhi

Faisal, S., Dana, Dianne., et al (2010). *Knowledge, attitudes and practices regarding dengue infection in Westmoreland, Jamaica*, West Indian Medical Journal.

Gandhi, A, Primalani, N., Rasa, S. and Marlais, M. (2013), *A model for peer-assisted learning in pediatrics,* India,www.pubmed.com.

Ghai, O.P. (2015). *Essential pediatrics*, 5th edition, Inter print publication, New Delhi.

Hasnain, F.G., Mohamad, H.I. and Mohammad, R.A, (2013). *A cross sectional study to assess knowledge, attitude and practice regarding dengue fever and its effectiveness of health education programme among school children, Malaysia*, Malaysian Journal of Public Health Medicine,volume-15.

Ibrahim, R., Adnan, Al-Bar and Mohamed korder,(2010*). Knowledge, attitudes, and practices relating to Dengue fever among females in high schools*, Jeddah, Saudhi Arabia.

Jeffrey, L., Lennon, David, W. and Coombs, (2014). *Child-invented health education games for dengue fever among 8 year old child.*

Karani, M., Tun-Linn, T. and Naoko, S., (2014), *A study to assess dengue related knowledge, attitudes, and practices of caretakers of elementary school children*, Thailand, International Journal of Tropical Disease & Health, issue 4,volume -2.

Kumar Arunesh (2013) did a Educational intervention programmeme regarding dengue and Its Prevention for Urban High School Children, India.

Leena, KC., Sr.Jacinta D'souza (2014). *A study to assess the effectiveness of child to child approach for health education on prevention of worm infestation among children of selected primary schools at Mangalore.*

Lissmol, M. (2014), *Effectiveness of child to child approach on environmental hygiene among school children at Trichy,* India.

Maria, C.D., Daniel, L.P. (2012). *Children as agent of their own health,* Journal of Public Health, Spain.

Manjunath, J.K., Vijaya, S.U., Acharaya (2010). *A prospective study on clinico-epidemiological profile of hospitalized children with dengue illness*, Jaipur, India. Indian Journal of Pediatrics.

Mittalhema, Faridi, khanna, shilpa, Patil.R, (2011), *A retrospective study on clinicohematological profile and platelet trenda in children with dengue in tertiary care hospital*, North India

Meghnath, D., Krishna, K.A. (2014). *Knowledge, Attitude and Practice Regarding Dengue Fever among the Healthy Population of Highland and Lowland Communities* , Central Nepal, India.

Mellanby, A.R., Rees, J.B., Tripp, J.H. (2010). *Peer-led and Adult-led school health education: Comparative research,* Health Education Research, London.

Muneeswari, B. (2014). *Effectiveness of Child to Child Approach regarding First-aid measures among school children,* Dharapuram, TamilNadu.

Monika paul (2010). *A study to assess knowledge and practice of women regarding prevention of dengue fever,* Singasandra PHC, Bangaloru.

Murugan, S. (2010). *Knowledge and Practices in controling dengue among primary school children, sk kota masai*, Johor.

Neethimozhi.P., (2013). *Effectiveness of child to child approach on dental hygiene among school children at Trichy (unpublished thesis)*, India.

Nivedita, G. (2012). *Incidence of dengue fever in Tamil nadu*, Indian Journal Of Medical Research.

Ohlin, E. (2012). did a qualitative study to examine the effectiveness of child to child approach to examine school children's knowledge about malaria in Babati, Tanzania.

Park.K. (2015). *Textbook of Preventive and Social Medicine,* 23rd edition , M/S bansanidas Bhanot publishers, India.

Piyush, G. (2008), *Essentials of Pediatrics*, 2nd edition, CBS publishers, Delhi.

Ramzan. M., Ansar, A. and Nadeem, S. (2015) *A study on knowledge and preventive practices on dengue fever in South East Asia index for Medline.*

Sandeep, K.P., Divya Shettigar (2014). *An educational intervention programme on dengue and its prevention among rural high school children*, Karnataka, India.

Shivani,K., Jasbir and Suresh, (2014). *Awareness of dengue fever among school children: a comparison between private and government schools*, Karnataka, India.

Srinivas,G. (2014). *Global burden of dengue, Health Action*, India.

Suwanbamrung,C.,Promsupa,S. (2013). *A study to determine risk factors related to dengue infections in primary school students: exploring students' basic knowledge of dengue and examining the larval indices, Southern Thailand. Journal of Infection and Public Health.*

Suzanne, S. et al (2013). *Health Buddies: A novel, per-led education for prevention of obesity at elementary school,* Journal of Pediatrics, Canada.

Sunder, K.R. (2015). Community Health Nursing , 5th edithion, Eenumenical book services, New Delhi.

Vijayalakshmi, and Thomas.M.(2014). *A study to assess effectiveness of child to child approach on knowledge regarding common injuries and its first aid measures*

among school children at Coimbatore. TNNMC Journal Community health N ursing, Vol –II,Issue-2.

Viana, D.V., Ignotti, E. (2013). *A systemic review of weather variations and dengue fever in Brazil.*

Vijayakumari, (2009). *Determine the effectiveness of child-child approach on Knowledge of HIV/AIDS among adolescents,* India.

Vijayalakshmi, (2013). *A study to assess the effectiveness of adult to adult teaching programme on knowledge and practice of dengue fever*, Salem, Tamilnadu, India.

Wan Rozita, et al (2013). *A study to assess a knowledge, attitude and practices (KAP) study in an urbanized residential area* , Kuala Lumpur.

Wong, L.P. and Abubaker, (2013). *Community knowledge, health beliefs, practices and experiences related to dengue fever and its association with IgG seropositivity*, *Journal of PLoS Neglected Tropical Disease.*

Wonkheirakam rina, (2012), *A study to assess the effectiveness of Structured Teaching programme on Knowledge of High School children regarding prevention Of dengue Fever in Selected Schools*, Bengaluru.

www.wikipeda/dengue fever.com

www.medline.com

www.pubmed.com

Zhang (2014), *To compare treatment of dengue with and without use of corticosteroids or placebo in relation to preventing shock-related death and disease progression in children and adults* , Southeast Asia.

APPENDIX - A

(a) LETTER REQUESTING FOR VALIDATION

From

Mrs. M.Anitha Catherine,
II Yr M.Sc, (N),
Dr. G. Sakunthala College of Nursing,
Trichy.

To

Through

The Principal,
Dr. G. Sakunthala College of Nursing,
Trichy.

Respected Madam,

Sub: Seeking experts opinion and suggestions on content validity of the tool.

I M.ANITHA CATHERINE, II year M.Sc.,(N) student of Dr. G. Sakunthala College of Nursing humbly request you to go through the tools which is to be used for data collection of my dissertation, to be submitted to Dr. M.G.R. Medical University, Guindy, Chennai, as partial fulfilment of my university requirements for the award of the degree of Masters of science in Child Health Nursing.

The problem statement is "A Quasi experimental study to evaluate the effectiveness of child to child approach on knowledge and expressed practice regarding Dengue Fever among school going children in the selected school at Trichy 2015 - 2016."

With regard to this, I request you to give your valuable suggestions regarding the appropriateness of the tool, which I have enclosed. Kindly give your experts comments on the tool.

I also request you to kindly sign the certificate stating that the tool has been validated. Your kind co-operation and your expert judgement will be highly appreciated.

Thanking you

Date: Yours faithfully,

Place: **Mrs. M.Anitha catherine**

APPENDIX-A

(b) i. LETTER SEEKING PERMISSION TO CONDUCT THE RESEARCH PROJECT

From

The Principal,
Dr.G.Sakunthala College of nursing,
Trichy.

To

The Headmaster,
Government high school,
Avoor,
Trichy-5

Respected Madam.

Sub: Letter requesting permission to conduct research study : Reg

This is to introduce Mrs.M.Anitha Catherine, M.Sc Nursing II Year student of DR. G. Sakunthala College of Nursing, Trichy. She is to conduct a research project which is submitted to the Tamilnadu Dr. M.G.R. Medical University, Chennai, as partial fulfillment of university requirement for the award of Master Degree in nursing .Her topic.

"A Quasi experimental study to evaluate the effectiveness of child to child approach on knowledge and expressed practice regarding Dengue Fever among school going children in the selected school at Trichy 2015- 2016."

The student is interested in conducting her study among school children regarding Dengue Fever in Government high school. I shall be obliged if you kindly grant permission for conducting study in your esteemed institution.

Thanking you,

Yours sincerely,

(PRINCIPAL)

APPENDIX-A

(b)ii. LETTER SEEKING PERMISSION TO CONDUCT THE RESEARCH PROJECT

From

The Principal,
Dr.G.Sakunthala College of nursing,
Trichy.

To

The Headmaster,
Municipality school,
Ooliyoor,
Trichy-5

Respected Madam.

Sub: Letter requesting permission to conduct research study : Reg

This is to introduce Mrs.M.ANITHA CATHERINE M.Sc Nursing II Year student of DR. G. Sakunthala College of Nursing, Trichy. She is to conduct a research project which is submitted to the Tamilnadu Dr. M.G.R. Medical University, Chennai, as partial fulfillment of university requirement for the award of Master Degree in nursing .Her topic.

"A Quasi experimental study to evaluate the effectiveness of child to child approach on knowledge and expressed practice regarding Dengue Fever among school going children in the selected school at Trichy 2015 - 2016."

The student is interested in conducting her study among school children regarding Dengue Fever in Government school. I shall be obliged if you kindly grant permission for conducting study in your esteemed institution.

Thanking you,

Yours sincerely,

(PRINCIPAL)

APPENDIX - A

(c) iii. REQUISITION LETTER TO MEDICAL GUIDE

From

M.Anitha Ctherine
II year M.sc., (N)
DR.G.Sakunthala College of nursing
Trichy

To

Dr.V.Kanagaraj,M.D,D.C.H,D.L.O,
G.V.N Hospital
Trichy.

Respected sir,

Sub: Requesting permission for the guidance to conduct the study regarding,

"A Quasi experimental study to evaluate the effectiveness of child to child approach on knowledge and expressed practice regarding Dengue Fever among school children in the selected school at Trichy 2015 - 2016."

I am studying in II year, M.SC., (N) in Dr. G.Sakunthala College of Nursing, Trichy. I would like to conduct a study as a partial fulfillment for the degree of M.SC. (N).

The statement of the problem is '' A Quasi experimental study to evaluate the effectiveness of child - child approach on knowledge and expressed practice regarding Dengue fever among school going children at the selected school in Trichy, 2015 - 2016.

I humbly request you to guide me and kindly give suggestions for conducting the study, I will be thankful sir.

Thanking you in anticipation

Place: Yours Sincerely,

Date: M.Anitha Catherine

APPENDIX-B

LIST OF EXPERTS CONSULTED FOR THE CONTENT VALIDITY OF RESEARCH TOOL

Mrs. AMBIKA, M.Sc (N),
Reader,
HOD of Dept of Pediatrics,
Our Lady College of Nursing,
Thanjur.

Mrs.Vani Chitra Devi, MSc (N),
Vice Principal,
Karpaga Vinayaga College of Nursing,
Pudukkottai

Prof. Ms Mariyammal Pappu, M.Sc (N)
H.O.D Peadiatric Nursing Dept,
K.M.C.H College of Nursing,
Avinashi Road,
Coimbatore-641014.

Prof. Ms Mahalakshmi, M.Sc (N)
Peadiatric Nursing Dept,
K.M.C.H College of Nursing.
Prof. Ms R.Sasikala,MSc(N)
Asst.Prof,Peadiatric Nursing Dept,
K.M.C.H College of Nursing,
Coimbatore-641014.

APPENDIX-C
RESEARCH INSTRUMENT (ENGLISH)
QUESTIONNAIRE ON DENGUE FEVER

INTRODUCTION

Good morning, I am M.Anitha catherine, II Year M. Sc (N) student of Dr.G. Sakunthala College of Nursing. I will ask few questions regarding dengue fever. This is only for educational purpose. The confidentiality will be strictly maintained. Self administered questionnaire to assess the knowledge and expressed practice of children regarding dengue fever.

PART-I

Instruction

Please read the questions carefully and put a tick mark (√) and indicated the response that you chose against the space provided.

DEMOGRAPHIC VARIABLES

1. Age
   a) 11years ( )
   b) 12 years ( )
2. Sex
   a) Male ( )
   b) Female ( )
3. Educational status of the parents
   a) Illiterate ( )
   b) b) Higher secondary ( )
   c) c) Graduate ( )
4. Occupation of parents
   a) Government ( )
   b) b) Private ( )
   c) c) coolie ( )
   d) d) Self employed ( )

5. Family income

   a) 5,000 – 10,000 ( )

   b) 10,001 – 15,000 ( )

   c) 15,001 and above ( )

6. Religion

   a) Hindu ( )

   b) Christian ( )

   c) Muslim ( )

7. Resident area

   a) Rural ( )

   b) Urban ( )

8. Sources of drinking water

   a) Corporation water ( )

   b) Bore water ( )

   c) Well water ( )

9. Whether any of your family members affected with dengue fever before?

   a) yes ( )

   b)No ( )

10. Previous source of information about dengue fever

   a) Health Professionals ( )

   b)T.V , Radio, Posters ( )

   c) friends ( )

   d) donot know ( )

PART – II

KNOWLEDGE QUESTIONNAIRE

1. What is dengue fever?

a. Mosquito borne Communicable diseases. ( )
b. Hereditary diseases. ( )
c. Non Communicable disease. ( )
d. Congenital disease ( )

2. In which places dengue mosquito is more prevalent?

a. Extreme cold places ( )
b. Tropical regions ( )
c. Low landscape regions ( )
d. Hilly place ( )

3. Which is the infectious agent for dengue fever?

a. Bacteria ( )
b. Virus ( )
c. Fungus. ( )
d. Protozoa. ( )

4. What is the name of the mosquito which causing dengue fever?

a. Aedes mosquito ( )
b. Culx mosquito ( )
c. Male anopheles mosquito ( )
d. Culiseta melanura ( )

5. What is the other name for dengue fever?

a. Break bone fever. ( )
b. Typhoid fever. ( )
c. Malaria fever ( )
d. Yellow fever. ( )

6. In which season dengue fever is more prevalent?

a . Summer season. ( )

b. Rainy season. ( )

c. Winter season. ( )

d. Post rainy season ( )

7. Which group is more commonly affected by dengue?

a. Children ( )

b. Old age ( )

c. adult. ( )

d. youngsters ( )

8. Where the causative organisms of dengue breed?

a. Drainage water. ( )

b. Dirty water. ( )

c. storage Clean water. ( )

d. Stagnated water ( )

9. How does Aedes mosquito looks like?

a. Big mosquito. ( )

b. Small mosquito. ( )

c. Black mosquito with white strips. ( )

d. Black mosquito with green strips. ( )

10. When the Aedes mosquito bites?

a. Day time. ( )

b. Night time. ( )

c. Afternoon time ( )

d. Early Morning & Evening only. ( )

11. When the Aedes mosquito is infected with dengue?

a. After biting a person infected with dengue. ( )

b. After laying eggs. ( )

c. Before laying eggs. ( )

d. During fertilization. ( )

12. In how many days Aedes mosquito egg to become an adult mosquito?

a. After 7-10 days. ( )

b. After 11-15 days. ( )

c. After 16-20 days. ( )

d. After 5-7 days. ( )

13. What is the incubation period to develop signs and symptoms after infected with dengue virus?

a. 2-7 days. ( )

b.5-10 days ( )

c.4-8 days. ( )

d. 3-9 days. ( )

14. What is the initial signs and symptoms for dengue fever?

a. High fever, joint pain, headache. ( )

b. vomiting , diarrhoea , weight loss ( )

c. palpitation, ear pain, abdominal distension. ( )

d. excessive sweating , eye pain , indigestion. ( )

15. What is the signs and symptoms for dengue haemorrhagic fever ?

a. Bleeding from nose, teeth , gums and under the skin ( )

b. Extremities become chills. ( )

c. Decreased blood pressure. ( )

d. Bluish discolouration of the body ( )

16. What is the test to confirm dengue fever?

a. sputum test. ( )

b. Urine test. ( )

c. Blood test. ( )

d. Stool test. ( )

17. What is the complication of dengue fever?

a. Inflammation of liver ( )

b. Inflammation of the stomach ( )

c. Inflammation of intestine ( )

d. Inflammation of gall bladder ( )

18. How will you control mosquito breeding sites?

a. Discard the water stagnated items & Cover the water storage container ( )

b. Keep the water storage vessels open ( )

c. Change the water storage container ( )

d. Keep the water tank exposed to sun ( )

19. How will you protect from Aedes mosquito bite?

a. Keep doors and windows open. ( )

b. Wear half-sleeved cloth. ( )

c. Use mosquito net and repellents. ( )

d. Keep the drainage open. ( )

20. What type of diet will you advice for the client with dengue fever?

a. Fiber diet. ( )

b. Spicy diet. ( )

c. Bland diet with plenty of oral fluids. ( )

d. Diet rich in fat. ( )

21. which fruit juice is advisable for the prevention of dengue fever?

a. lemon juice ( )

b.banana stem juice ( )

c.papaya juice ( )

d. apple juice ( )

22. What is the immediate home remeady to reduce body temperature?

a.Advice to give tepid sponge ( )

b.Advice to give minimum water. ( )

c. Advice hot water bath. ( )

d. Advice to do excercise. ( )

23. Which of the following solution is used to kill dengue mosquitos?

a. Paris green/Abate solution. ( )

b. Chlorine. ( )

c. Bleaching powder. ( )

d. Iodine. ( )

24. What is the uses of nila vemabu kudineer?

a. It prevents recurrency of viral infection ( )

b. prevent cancer disease ( )

c. prevent respiratory tract infections ( )

d. prevent ulcer disease ( )

25. Who has the responsibility in prevention of dengue?

a. Citizen. ( )

b. Government. ( )

c. Both citizen and Government. ( )

d. Non-governmental organizations. ( )

PART . III. EXPRESSED PRACTICE QUESTIONS.

S.NO	CONTENTS	YES	NO
1	Does your mother clean the water storage vessels?		
2	Do you empty the water which is collected in items such as tyres, coconut shells, broken pots?		
3	Does your mother store the milk covers inside your house?		
4	Do your family members clear the water which is stagnated around your house?		
5	Do you keep the grinding stone and other pits free from water?		
6	Does your family members clean the water tank regularly?		
7	Do you use mosquito net/coil/liquidator in your house?		
8	Does your mother cover the water storage items always?		
9	Do you have mosquito net covered window?		
10	Does your family members allow the corporation workers to spray larvicides to kill mosquito larvae?		

கேள்வி தொகுப்பு (தமிழ்)

டெங்கு காய்ச்சல் பற்றிய வினாக்கள்

பகுதி – 1

(√) குறியை பொருத்தமான இடங்களில் இடவும்

பின்னனி விவரம்

1.வயது

அ. 11 ( )

ஆ.12 ( )

2.பாலினம்

அ. ஆண் ( )

ஆ. பெண் ( )

3. பெற்றோரின் கல்வி தகுதி

அ.படிப்பறிவு இல்லை ( )

ஆ. மேல்நிலை வரை ( )

இ. பட்டதாரி ( )

4. பெற்றோரின் வேலை

அ.அரசாங்க வேலை ( )

ஆ.தனியார் நிறுவன வேலை ( )

இ.கூலி வேலை ( )

ஈ. சுயதொழில்

5. பெற்றோரின் மாத வருமானம்

அ. 5000 –10000 ( )

ஆ.10001 -15000 ( )

இ. 15000க்கு மேல் ( )

6. மதம்

அ. இந்து ( )

ஆ. கிறிஸ்தவர் ( )

இ. முஸ்லீம் ( )

7. வசிப்பிடம்

அ.கிராமம் ( )

ஆ.நகரம் ( )

8. குடிக்கும் தண்ணீர் எங்கிருந்து வருகிறது?

அ. மாநகராட்சி தண்ணீர் ( )

ஆ.அடிகுழாய் தண்ணீர் ( )

இ. கிணற்று தண்ணீர் ( )

9. உங்கள் குடும்ப அங்கத்தினர் யாரேனும் இதற்கு முன் டெங்கு காய்ச்சலால் பாதிக்கப்பட்டிருக்கிறார்களா ?

அ. ஆம் ( )

ஆ.இல்லை ( )

10. டெங்கு காய்ச்சலை பற்றி இதற்கு முன் யார் மூலமாவது கேள்விப்பட்டிருக்கிறீர்களா?

அ. மருத்துவ ஊழியர்கள் ( )

ஆ.தொலைகாட்சி / வானொலி / சுவரரொட்டி ( )

இ.நண்பர்கள் ( )

ஈ தெரியாது ( )

பகுதி – 2

அறிவு சார்ந்த வினாக்கள்

பின்வரும் விவரங்களை கவனமாக படித்து சரியான பதிலை தேர்ந்தெடுக்கவும்

1.டெங்கு காய்ச்சல் என்றால் என்ன?

அ.கொசுவினால் பரவும் தொற்று வியாதி ( )

ஆ.பரம்பரை வியாதி ( )

இ. தொற்று வியாதி இல்லை ( )

ஈ.பிறவி வியாதி ( )

2.எந்த தட்பவெப்ப பகுதிகளில்.டெங்கு கொசு அதிகமாக காணப்படுகிறது?

அ.அதிக குளிர் பிரதேசங்களில் ( )

ஆ.வெப்பமான பகுதிகளில் ( )

இ.தாழ்வான பகுதிகளில் ( )

ஈ.மலை பிரதேசங்களில் ( )

3.எந்த உயிரினம் டெங்குகாய்ச்சல் வருவதற்க்கு காரணம்?

அ.பாக்டிரியா ( )

ஆ.வைரஸ் ( )

இ..ஃபங்கஸ் ( )

ஈ.புரொட்டோஸோவா ( )

4.டெங்கு காய்ச்சலை உண்டாக்கும் கொசுவின் பெயர் என்ன?

அ.ஏடீஸ் கொசு ( )

ஆ.க்யுலக்ஸ் கொசு ( )

இ.ஆண் அனாபிலஸ் கொசு ( )

ஈ.க்யுலஸ்ட்ரா மெல்மன்யுரா கொசு ( )

5.டெங்குகாய்ச்சலின் மறுபெயர் என்ன?

அ.இடைவெளி எலும்பு காய்ச்சல் ( )

ஆ.டைபாய்டு காய்ச்சல் ( )

இ.மலேரியா ( )

ஈ.எல்லோ காய்ச்சல் ( )

6.எந்த பருவ காலத்தில் டெங்குகாய்ச்சல் அதிகமாக காணப்படுகிறது?

அ.வெயில் காலத்தில் ( )

ஆ.மலை காலத்தில் ( )

இ.குளிர் காலத்தில் ( )

ஈ.மழை ஒய்ந்த காலத்தில் ( )

7.எந்த பருவத்திற்குட்பட்டவர்கள் டெங்குகாய்சலினால் அதிகமாக பாதிக்கபடுகிறார்கள்?

அ.குழந்தைகள் ( )

ஆ.வயதானவர்கள் ( )

இ.பருவ வயது ( )

ஈ.விடலை பருவம் ( )

8.எந்த இடத்தில் டெங்கு கொசு முட்டைபொரிக்கிறது?

அ.சாக்கடை நீர் ( )

ஆ.அழுக்கான நீர் ( )

இ.தேங்கி நிற்கும் சுத்தமான நீர் ( )

ஈ. உப்பு தண்ணீர் ( )

9.ஏடிஸ் கொசு எப்படி தோற்றமளிக்கும்?

அ.பெரிய கொசு ( )

ஆ.சிறிய கொசு ( )

இ.வெள்ளை வரிகொண்ட கருப்புநீற கொசு ( )

ஈ.பச்சை நீற கொசு ( )

10. ஏடிஸ் கொசு எப்பொழுது கடிக்கும்?

அ.பகல் வேளையில் ( )

ஆ.இரவு வேளையில் ( )

இ.பிற்பகல் வேளையில் ( )

ஈ.அதிகாலை மற்றும் சாயங்கால வேளையில் ( )

11.எப்பொழுது ஏடிஸ் கொசு டெங்கு வைரஸால் பாதிக்கப்படுகிறது?

அ.டெங்கு பாதிக்கபட்ட நபரை கடித்த பிறகு ( )

ஆ.முட்டை பொரித்த பிறகு ( )

இ. முட்டை பொரிக்கும் முன்பு ( )

ஈ.இனச்சேர்க்கையின் போது ( )

12.எத்தனை நாட்களில் ஏடிஸ் கொசு முட்டை பருவகொசுவாக மாறுகிறது?

அ.7-10 நாட்களில் ( )

ஆ.11-15 நாட்களில் ( )

இ.16-20 நாட்களில் ( )

ஈ.5-7 நாட்களில் ( )

13.எத்தனை நாள் காலக்கெடுவிற்குள்ளாக டெங்கு காய்ச்சலின் அறிகுறிகள் தோன்றும்?

அ. 2-7 நாட்களில் ( )

ஆ.5-10 நாட்களில் ( )

இ.4-8 நாட்களில் ( )

ஈ.3-9 நாட்களில் ( )

14. டெங்கு காய்ச்சலின் முதல் நீலை அறிகுறிகள் யாவை?

அ.அதிகமான காய்ச்சல்,மூட்டு வலி,தலைவலி ( )

ஆ.உடல் எடை குறைதல் ,வாந்தி,வயிற்றுப்போக்கு ( )

இ. படபடப்பு,காதுவலி,வயிறுகோளாறு ( )

ஈ.தசைபிடிப்பு,கண் வலி,அசீரணம் ( )

15.டெங்கு ரத்த காய்ச்சலின் அறிகுறிகள் யாவை?

அ.மூக்கு,பல்,ஈறு மற்றும் தோலுக்கடியில் ரத்த கசிவு ( )

ஆ.கை மற்றும் கால்கள் குளிந்து காணப்படுதல் ( )

இ.ரத்த அழுத்தம் குறைந்து காணப்படுதல் ( )

ஈ.உடல் நீல நிறமாக மாறுதல் ( )

16.டெங்கு காய்ச்சலை உறுதிப்படுததுவதற்கு செய்யபடும் பரிசோதனை என்ன?

அ. சளி பரிசோதனை ( )

ஆ.சிறுநீர் பரிசோதனை ( )

இ.ரத்த பரிசோதனை ( )

ஈ.மலம் பரிசோதனை ( )

17. டெங்கு காய்சலின் பின் விளைவுகள் யாவை?

அ. கல்லீரல் பாதிப்பு ( )

ஆ. இரைப்பை பாதிப்பு ( )

இ.குடல் பாதிப்பு ( )

ஈ.பித்தப்பை பாதிப்பு ( )

18. .கொசு வளருவதை எப்படி தடுக்கலாம்?

அ. தண்ணீர் தேங்கி நிற்க்கும் பொருட்களை அகற்றுதல். மற்றும். தண்ணீர் சேமித்து வைக்கும் பாத்திரங்களை மூடி வைத்தல். ( )

ஆ. தண்ணீர் குடங்களை திறந்து வைத்தல். ( )

இ. தண்ணீர் சேமித்து வைக்கும் பாத்திரங்களை மாற்றுதல் ( )

ஈ குடிக்கும் தண்ணீரை சூரிய ஒளிபடுமாறு வைத்தல். ( )

19. கொசுக்கடியிலிருந்து நம்மை எம்மை எவ்வாறு பாதுகாக்கலாம்?

அ. கதவு மற்றும் ஜன்னல்களை திறந்து வைக்க வேண்டும். ( )

ஆ. அரைக்கை சட்டை அணிந்து கொள்ளலாம். ( )

இ. கொசுவலை மற்றும் கொசு பத்தி வைத்துக்கொள்ளலாம். ( )

ஈ.சாக்கடையை திறந்து வைத்துக்கொள்ளலாம். ( )

20. டெங்கு காய்ச்சலால் பாதித்த நபருக்கு எந்த வகையான உணவு தரவேண்டும்?

அ உப்பு இல்லாத உணவு ( )

ஆ.மசால கலந்த உணவு ( )

இ.காரம் இல்லாத உணவுடன் அதிக தண்ணீர்

எடுத்துகொள்ளுதல் ( )

ஈ. கொழுப்பு நிறைந்த உணவு மட்டும் ( )

21. டெங்கு காய்ச்சலால் பாதித்த நபருக்கு எந்த வகையான பழச்சாற்றை குடிக்க வேண்டும்?

அ. ஆரஞ்சு பழசாறு ( )

ஆ. மாதுளை பழசாறு ( )

இ. பப்பாளி பழசாறு ( )

ஈ. எலும்மிச்சை பழசாறு ( )

22. டெங்கு பாதித்த நபருக்கு அதிக காய்ச்சல் இருக்கும் போது வீட்டில் என்ன செய்ய வேண்டும்?

அ.குளிந்த நீரால் உடம்பை துடைத்தல் ( )

ஆ.சுடுநீரில் குளிக்க சொல்லுதல் ( )

இ.உடற்பயிற்சி செய்யசொல்லுதல் ( )

ஈ.குடிக்க தண்ணீர் குறைவாக கொடுத்தல் ( )

23. டெங்கு கொசுவை கொல்லுவதற்கு என்ன கரைசல் உபயோகபடுத்தவேண்டும்

அ.பாரீஸ் கிரீன்,அபெய்டு கரைசல் ( )

ஆ.குளோரீன் கரைசல் ( )

இ.சோடா காரம் கரைசல் ( )

ஈ.ஐயோடின் கரைசல் ( )

24. நில வேம்பு குடிநீரின் நன்மைகள் யாவை ?

அ. கேன்சர் வியாதி வராமல் தடுக்கிறது ( )

ஆ. வைரஸ் கிருகளால் உண்டாகும் காய்ச்சல்

மறுபடியும் வராமல் தடுக்கிறது ( )

இ. சளி பிரச்சனைகள் வராமல் தடுக்கிறது ( )

ஈ. வயிற்றுப்புண் வராமல் தடுக்கிறது ( )

25.டெங்கு காய்ச்சல் மேலும் வராமல் தடுப்பது யார் பொறுப்பு?

அ.தொண்டு நிறுவனங்களின் பொறுப்பு ( )

ஆ. சமூக ஆராய்ச்சியாளர்களின் பொறுப்பு ( )

இ. நாட்டின் பிரஜை மற்றும் அரசாங்கம் ( )

ஈ.தனியார் நிறுவனங்களின் பொறுப்பு ( )

வ.எண்	பொருள் அடக்கம்	ஆம்	இல்லை
1	தண்ணீர் சேமிக்கும் பாத்திரங்களை அம்மா கழுவுவார்களா?		
2	நீங்கள் டயர்,சிரட்டை,உடைந்த பாத்திரங்கள்,பிளாஸ்டிக் பொருட்களிலுள்ள தேங்கியுள்ள நீரை காலி செய்வீர்களா?		
3	உங்கள் வீட்டை சுற்றி தேங்கி நிற்கும் தண்ணீரை சுத்தம் செய்வீர்களா?		
4	உங்களுடைய அம்மா காலியான பால் பைகளை வீட்டிற்குள் சேமித்து வைப்பார்களா?		
5	ஆட்டுக்கல்,மற்றும் வேறு குழிகளில் உள்ள தண்ணீரை சுத்தம் செய்வீர்களா?		
6	தண்ணீர் தொட்டியை சுத்தம் செய்வீர்களா?		
7	கொசு, வலை,கொசு பத்தி, கொசு விரட்டி பயன்படுத்துவீர்களா?		
8	தண்ணீர் சேமிக்கும் பாத்திரங்களை மூடிவைப்பீர்களா?		
9	உங்கள் வீட்டு கதவு மற்றும் ஜன்னல்களை தூங்கும்போது அடைத்துவைப்பீர்களா?		
10	உங்கள் குடும்பத்தினர் கொசுக்களுக்கு மருந்து அடிக்கவரும் ஊழியர்களை அனுமதிப்பார்களா?		

APPENDIX-D

SCORING KEY

ITEM SCORE 1 - KNOWLEDGE QUESTIONNAIRE

ITEM	A	B	C	D
1	1	0	0	0
2	0	1	0	0
3	0	1	0	0
4	1	0	0	0
5	1	0	0	0
6	0	0	0	1
7	1	0	0	0
8	0	0	1	0
9	0	0	1	0
10	0	0	0	1
11	1	0	0	0
12	1	0	0	0
13	1	0	0	0
14	1	0	0	0
15	1	0	0	0
16	0	0	1	0
17	1	0	0	0
18	1	0	0	0
19	0	0	1	0
20	3	0	1	0
21	0	0	1	0
22	1	0	1	0
23	1	0	0	0
24	0	1	0	0
25	0	0	1	0

ITEM SCORE – 2 - EXPRESSED PRACTICE QUESTIONNAIRE

ITEM NO	YES	NO
1.	1	0
2.	1	0
3.	1	0
4.	1	0
5.	1	0
6.	1	0
7.	1	0
8.	1	0
9.	1	0
10.	1	0

APPENDIX - E

CHILD-CHILD APPROACH (ENGLISH)

TEACHING MODULE

Name of the topic	:	Dengue Fever
Group	:	School age children of 11-12 years.
Venue	:	Municipality School, Ooliyoor and Government high School , Avoor.
Time duration	:	9.00 am - 4.00 pm
Audiovisual Aids	:	PowerPoint
Methods of teaching	:	Lecture cum discussion.

General objectives

The sample (school children) will be able to gain adequate knowledge regarding dengue fever, and apply this knowledge in to their day today life.

Specific objectives

The children will be able to

- define dengue fever
- determine the specific characteristics

- tell the risk factors for dengue fever
- discuss the breeding source for dengue mosquito
- explain the mode of transmission of dengue fever
- state the incubation period of dengue fever
- enlist the types of dengue fever
- specify the signs and symptoms of dengue fever
- mention the complications of dengue fever
- describe the prevention and control of dengue fever
- brief out the essentials of care patient with dengue fever
- enumerate the importance of nilavembu kudineer

SPECIFIC OBJECTIVE	TIME	CONTENT	TEACHER'S ACTIVITY	STUDENTS ACTIVITY
		INTRODUCTION		
Introduce the topic	1 min	"Children have never been very good at listening to the elders, but they have never failed to imitate them" - James Baldwin	Explaining the power point	Listening
define dengue fever	1 min	**DEFINITION** Dengue fever is a mosquito borne disease. It is communicable disease caused by dengue virus.The name of the mosquito is aedes mosquito.The other name for dengue fever is "break-bone fever'',because of severe body and joint pain		
determine the specific characteristics	2 min	**SPECIFIC CHARACTERISTICS OF AEDES MOSQUITO** Aedes mosquito looks like black colour with white stripes marking on their body and legs It can fly maximum 100-200 meters per day.This feature makes the	Lecture	

		mosquito to bite the person and transmit the disease more during an epidemic They are more found in tropical and subtropical area due to over crowding ,improper water storage It can breed only in fresh stagnant water and rain water They typically bite during day particularly in early morning and evening		
tell the risk factors for dengue fever	2 min	**RISK FACTOR** Age : It can occurs at any age but it is more vulnerable among children under the age of 15 years due to lack of awareness and low immunity against disease **GENDER:** It affects both gender **SEASON (Post- Rainy season)** It is more common during rainy season particularly after the rain stops due to stagnation and collection of water in the discarded items .So it is more common in post rainy season	Explaining Lecture	Listening Listening the power point

discuss the breeding source for dengue mosquito	5min	**BREEDING SOURCES** Aedes mosquito breed in small collection of fresh water in discarded container ⇩ ⇩ ARTIFICIAL Discarded plastic tea cup/tumbler plastic cover/bag/cans/tins Broken bottles and pots Grinding stone Coconut shells Old discarded tyres Flower pots/vases Open water tank Uncovered water storage container Refrigerator / Air coolers NATURAL Tree holes Bamboo stumps Leaf axils and fallen leaves Ground depression Unclean Garden	Lecture cum discussion	Listening

explain the mode of transmission of dengue fever	3min	**MODE OF TRANSMISSION** Commonly female aedes mosquito prefer blood as main food for reproduction.The male aedes mosquitoes not transmitting disease because they are not bitting the human as they are vegeatarian.They prefer plant juices **Transmission cycle** Infective man ⇨ Mosquito ⇨ Healthy man Aedes mosquito bite and suck the infected blood from a infected person and injecting the same infected blood into Nother healthy person blood. In this way the dengue fever is transmitted from one person to another person. **Life cycle of Aedes Mosquito** Aedes mosquito breeds in fresh stagnant water. Aedes mosquito lays egg in water. Within 2 - 3 days it becomes larvae. It becomes pupa after 4 - 5 days. It becomes an adult female mosquito within 1 – 2 days. The approximate days for an aedes egg to become an adult mosquito is 7 – 10 days. So it is advised that to discard the stored water from container used for domestic purpose and clean weekly once.	Lecture cum dicussion	Listening Listening the power point

state the incubation period of dengue fever	1min	**Incubation period** It is defined as time interval between the entry of micro organisms and development of signs and symptoms. The incubation period for dengue fever is about 2 – 7 days.	Explaining the power point	Listening and asking doubts
enlist the types of dengue fever	1min	**Types of Dengue** 1. Classical Dengue fever 2. Dengue hemorrhagic fever 3. Dengue shock syndrome		
specify the signs and symptoms of dengue fever	5 min	**Classical Dengue fever** This type of dengue occurs in an individual with , low immunity against disease. Initial symptoms of dengue fever are Sudden raise of temperature (103 – 105^{o} F) with chills Severe headache Severe muscle and joint pain. Other manifestations are present in 24 hours Retro orbital pain	Lecture cum discussion	Listening

		Altered taste sensation Abdominal pain Sore throat Skin rashes Anorexia Weakness **DENGUE HEMORRHAGIC FEVER** It will develop if prompt treatment is not given The symptoms are Fever persist for 2-7 days Bleeding from nose,teeth,gums,under the skin Red sore in the soft palate Melena Tiedness Decreased Platlet count DENGUE SHOCK Cold extremities Hypotension Weak pulse	Explaining Lecture cum disscussion	Listening

		Unconsciousness Death		
Specify the diagnostic evaluation	1min	**Diagnostc evaluation for dengue fever** Blood test is used to diagnose dengue fever usually platelet counts will be low.The confirmatory test to rule out dengue is ELISA test.		
mention the complications of dengue fever	1min	**COMPLICATIONS** Inflammation of the liver Massive bleeding Shock Seizure Dehyration Hypotension Death	Listening the power point	Listening
describe the prevention and control of dengue fever	5min	**PREVENTION AND CONTROL OF DENGUE FEVER** There is no vaccine against dengue fever. Source reduction and production against aedes mosquito bite is the only way to prevent the transmission of disease.	Explaining the importence	

		Mosquito breeding can be controlled by : Keeping the environment Remove the sources such as coconut shells, used plastic cup,used tyers,broken bottles If the family has grinding stone ,keep it free from water collection and turn it upside down Cover all the water storage vessels with lid such as kudam,drums etc Regularly clean and change the water everyday. Donot filter or transfer the water into someother vessels and use it. Clear water stagnated area. Allow the corporation workers to pour abate solution into water tank to kill mosquito larvae. **Mosquito bites can be controlled by:** Plantation of herbal plants like neem and thulsi for the purpose of fogging Use mosquito coils,electric vapourisers and electric bat or repellant creams to prevent day time mosquito bite Close the doors and windows in the evening to prevent entry of mosquito inside the house	Explaining the power point	Listening

		Use mosquito net while sleeping		
brief out the essentials of care patient with dengue fever	2min	**Care of patient with dengue fever** Early notification and prompt treatment is important to prevent death Since there is no vaccine against dengue fever each and every individual have the responsibility to prevent dengue Avoid taking self medication Go to the near by clinics for early treatment Isolate the infected person to prevent spread of disease to others Give oral fluids to rehydrate the patient	Explaining	Listening
enumerate the importance of nilavembu kudineer	3 min	**Nilavembu kudineer** It is a siddah medicine prepared from herbels It is a best medicine to protect our body from various diseases like dengue etc. It is available in all primary health centres and government hospitals at free of cost. **<u>Preparation</u>** Take 100 ml of water and boil it then add 10 grams of nilavembu powder into the boiled water Wait until it comes to 50 ml.	Explaining	

	1min	Drink the solution 15 – 30 ml morning and evening daily **CONCLUSION** Prevention is better then cure.Dengue is vector borne viral disease. The disease transmitted from man to man so it is a responsible of every individual in the community to get an awareness of the dengue and take necessary action to control of mosquito brreding area.	Explaining	Listening

டெங்கு காய்ச்சல் பற்றிய வரையறுக்கப்பட்ட கற்பிப்புத்திட்டம்

பாடம்	: டெங்கு காய்ச்சல்
குழு	: ஏழாம் வகுப்பு பயிலும் மாணவ மாணவிகள்
நேரம்	: காலை 9 மணி மாலை 4 மணி வரை
இடம் –	: மாநகராட்சி நடுநிலை பள்ளி
கற்பிக்கும் முறை	: கற்பித்தல் மற்றும் கலந்துரையாடல்
கற்பிக்க உதவும் உபகரணம்	: மடிகணினி செயல்பாடு

பொதுவான பொருளுரை

குழந்தைகள் டெங்கு காய்ச்சல் பற்றியும் அதை பராமரிக்கும் முறை பற்றிய விவரங்களை அறிந்து கொண்டு, அதை அவர்களுடைய தினசரி வாழ்க்கையிலும் கடைபிடிப்பார்கள்.

குறிப்பிட்ட பொருளுரை

டெங்கு காய்ச்சல் என்றால் என்ன?

டெங்கு கொசுவின் குறிப்பிட்ட தன்மைகளை பற்றி அறிந்து கொள்ளுதல்

டெங்கு காய்ச்சலினால் அதிகமாக பாதிக்கபடுவோர் பற்றி அறிந்து கொள்ளுதல்

டெங்கு கொசு வளர்வதற்கு சாதகமான இடங்களை பற்றி அறிந்து கொள்ளுதல்

டெங்கு காய்ச்சல் பரவும் முறை பற்றி அறிந்து கொள்ளுதல்

டெங்கு காய்ச்சலுக்கான முதல் அறிகுறி தோன்ற ஆகும் காலக்கெடு பற்றி அறிந்து கொள்ளுதல்

டெங்கு காய்ச்சலின் வகைகளை பற்றி அறிந்து கொள்ளுதல்

டெங்கு காய்ச்சலின் அறிகுறிகளை பற்றி அறிந்து கொள்ளுதல்

டெங்கு காய்ச்சலால் பாதிக்கப்பட்டோருக்கு செய்யும் பரிசோதனைகளை பற்றி அறிந்து கொள்ளுதல்

டெங்கு காய்ச்சலால் வருனம் பின்விளைவுகளை பற்றி அறிந்து கொள்ளுதல்

டெங்கு காய்ச்சல் வராமல் தடுக்க உதவும் முறைகளை பற்றி அறிந்து கொள்ளுதல்

டெங்கு பாதித்த நபரை பராமரிக்கும் முறைகளை பற்றி அறிந்து கொள்ளுதல்

நிலவேம்பு குடிநீரின் நன்மைகளை பற்றி அறிந்து கொள்ளுதல்

குறிக்கோள்	நேரம்	பொருளடக்கம்	கற்பிப்பவர் செயல்பாடு	கற்பவர் செயல்பாடு
டெங்கு காய்ச்சல் என்றால் என்ன	1 நிமி	**டெங்கு காய்ச்சல் :** டெங்கு காய்ச்சல் என்பது ஏடீஸ் கொசுவினால் பரவும் ஒருவிதமான வைரஸ் தொற்று நோய்.இதன் மறுபெயர் “இடைவெளி எலும்பு காய்ச்சல்” அல்லது “டான்டி” காய்ச்சல் என்று பெயர். இது பொதுவாக எலும்புகளை பாதிப்பதால் இதற்கு அப்பெயர் வந்துள்ளது.		
டெங்கு கொசுவின் குறிப்பிட்ட தன்மைகளை பற்றி அறிந்து கொள்ளுதல்	2 நிமி	**டெங்கு கொசுவின் குறிப்பிட்ட தன்மைகள்** • டெங்கு கொசு பார்பதற்கு கருப்பு நிறமாகவும் உடம்பு மற்றும் கால்களில் வெள்ளை நிற கோடுகளை உடையதாகவும் இருக்கும் • இவை ஒரு நாளைக்கு 100 – 200 மீட்டர் வரை பறக்கும் திறமன் கொண்டது. • இவை அதிகமாக வெப்பமான பகுதிகளில் காணப்படுகிறது. • இவை தேங்கி நிற்கும் சுத்தமான தண்ணிர் மற்றும் மழை நீரில் முட்டை பொரிக்கும்	கணினி மூலம் விளக்கவுரை	கலந்துரையாடல் மற்றும் பங்கேற்றல்
டெங்கு காய்ச்சலினால் அதிகமாக பாதிக்கபடுவோர்	2 நிமி	**டெங்கு காய்ச்சலினால் அதிகமாக பாதிக்கபடுவோர்** ▪ வயது மற்றும் பாலினம் ஆண்,பெண் இருவரும் பாதிக்கப்படுவார்கள்.முக்கியமாக 15	கணினி மூலம் விளக்கவுரை	கலந்துரையாடல் மற்றும் பங்கேற்றல்

பற்றி அறிந்து கொள்ளுதல் டெங்கு கொசு வளர்வதற்கு சாதகமான இடங்களை பற்றி அறிந்து கொள்ளுதல்	5 நிமி	வயதிற்குட்பட்ட குழந்தைகள் அதிகமாக பாதிக்கப்படுகிறார்கள் ஏனென்றால் அறியமை மற்றும் குறைந்த எதிர்ப்புசக்தி காரணத்தினால் ஆகும் • **கால சீதோஷனம்** பெரும்பாலும் மழை ஒய்ந்த காலத்தில் டெங்கு காய்ச்சல் அதிகமாக பரவுகிறது. **டெங்கு கொசு வளர்வதற்கு சாதகமான இடங்கள்** ⇩ ⇩ செயற்கையான இடங்கள் இயற்கையான இடங்கள் உபயோகபடுத்தபட்ட மூங்கில் மற்றும் மர பிளாஸ்டிக் டீ கப் பொந்துகள் பால்கவர்,பை,டின்,கண்ணாடி இலை சருகுகள் தேங்காய் மட்டை குப்பி,மற்றும் ஆட்டுக்கல் சிமண்ட் தொட்டிகள் அசுத்தமான தோட்டம்	கணினி மூலம் விளக்கவுரை	கலந்துரையாடல் மற்றும் பங்கேற்றல்

டெங்கு காய்ச்சல் பரவும் முறை பற்றி அறிந்து கொள்ளுதல் டெங்கு காய்ச்சலுக்கான முதல் அறிகுறி தோன்ற ஆகும் காலக்கெடு பற்றி அறிந்து கொள்ளுதல்	3 நிமி	உபயோகபடுத்தபட்ட டயர் பூந் தொட்டி,மூடிவைக்காத தண்ணீர் தொட்டி குளிர்சாதன பெட்டியின் தண்ணீர் வடியும் தட்டு **டெங்கு காய்ச்சல் பரவும் முறை** மனித இரத்தம் பெண் கொசுவின் முக்கியமான உணவாகும். பெண் கொசு டெங்கு பாதித்த மனிதனிடமிருந்து இரத்தத்தை உறிஞ்சுகிறது.பின்பு அவை பாதிக்காத மனித்ர்களை கடித்து டெங்கு காய்ச்சலை பரப்புகிறது. பாதிக்கப்பட்ட மனிதன் ⇨ கொசு ⇨ பாதிக்காத மனிதன் **கொசுவின் வாழ்க்கை சுழல்** தேங்கி நிற்க்கும் சுத்தமான நீரில் கொசு முட்டை பொரிக்கிறது.2-3 நாட்களில் புழுவாக மாறுகிறது.பின்பு 4 – 5 நாட்களில் பியுப்பாவாக மாறுகிறது.பின்பு 1-2 நாட்களில் வளர்ந்த கொசுவாக மாறுகிறது.7-10 நாட்களில் முழுமையான பருவ கொசுவாக மாறுகிறது.	கணினி மூலம் விளக்கவுரை	கலந்துரையாடல் மற்றும் பங்கேற்றல்

டெங்கு காய்ச்சலின் வகைகளை பற்றி அறிந்து கொள்ளுதல் டெங்கு காய்ச்சலின் அறிகுறிகளை பற்றி அறிந்து கொள்ளுதல்	1நிமி 1நிமி 5 நிமி	டெங்கு காய்ச்சலுக்கான முதல் அறிகுறி தோன்ற ஆகும் **காலக்கெடு** ஒருவர் டெங்கு கொசுவால் பாதிக்கப்பட்டவுடன் 2 – 7 நாட்களுக்குள் நோய்க்கான முதல் அறிகுறி தோன்ற ஆரம்பிக்கும் **3 வகைகள்** ➢ கிளாசிக் டெங்கு காய்ச்சல் ➢ டெங்கு ரத்தக் கசிவு காய்ச்சல் ➢ டெங்கு ஷாக் **கிளாசிக் டெங்கு காய்ச்சல்** உடல் வெப்பநிலை அதிகரித்தல் அதாவது 103 – 105 வரை அதிகரிக்கும் அதிகமான தலைவலி கண் வலி வயிற்று வலி தொண்டை புண்	கணினி மூலம் விளக்கவுரை கணினி மூலம் விளக்கவுரை	கலந்துரையாடல் மற்றும் பங்கேற்றல் கலந்துரையாடல் மற்றும் பங்கேற்றல்

டெங்கு காய்ச்சலால் பாதிக்கப்பட்டோருக்கு செய்யும் பரிசோதனைகளை பற்றி அறிந்து கொள்ளுதல் டெங்கு காய்ச்சலால் வரும் பின்விளைவுகளை பற்றி அறிந்து கொள்ளுதல்	1 நிமி 2நிமி	தோலில் சிறு சிறு சிவப்பு நிற திட்டுக்கள் வெளிப்படுதல் **டெங்கு ரத்தக் கசிவு காய்ச்சல்** தொடர் காய்ச்சல் மூக்கு,பல்,ஈறுகளில் இரத்த கசிவு மேல் அன்னத்தில் புண்கள் இரத்தம் கலந்த மலம் சோர்ந்து போகுதல் **டெங்கு ஷாக்** கை மற்றும் கால்கள் குளிந்து காணப்படுதல் இரத்த அழுத்தம் குறைதல் சுய நினைவு அற்று போகுதல் மேலும் இறக்க கூட நேரிடும். **இரத்த பரிசோதனை** மூலம் கண்டறியலாம்.இதில் இரத்த தட்டை அனுக்கள் குறைந்து காணப்படும் கல்லீரல் பாதிப்பு அதிகபடியன இரத்தப்போக்கு நீர் சத்து குறைதல்		

டெங்கு காய்ச்சல் வராமல் தடுக்க உதவும் முறைகளை பற்றி அறிந்து கொள்ளுதல்	5 நிமி	ஷாக் இந்த காய்ச்சலுக்கு தடுப்பூசி ஏதும் கிடையாது **கொசு வளர்வதை தடுக்கும் முறைகள்** - சுற்றுப்புறத்தை தூய்மையாக வைத்துக்கொள்ளுதல் - கொசு வளர்வதற்கேற்ற சாதகமான பொருட்களை அகற்றுதல் - ஆட்டுகல்லை தண்ணீர் இல்லாமல் சுத்தமாக துடைத்து கவிழ்த்துவைக்க வேண்டும் - தண்ணிர் சேமிக்கும் பாத்திரங்கள் அதாவது குடம், பிளாஸ்டிக் ட்ரம், தண்ணீர் தொட்டி போன்றவற்றை மூடி வைக்கவேண்டும் - தினமும் குடிக்கும் தண்ணீர் பாத்திரங்களை கழுவி தண்ணீர் பிடிக்கவேண்டும். - வீட்டை சுற்றிலும் தண்ணீர் தேங்காதவாறு தினமும் சுத்தம் செய்யவேண்டும். - மாநகராட்சியிலிருந்து கொசு மருந்து அடிக்கவரும்	கணினி மூலம் விளக்கவுரை கணினி மூலம் விளக்கவுரை	கலந்துரையாடல் மற்றும் பங்கேற்றல் கலந்துரையாடல் மற்றும் பங்கேற்றல்

டெங்கு பாதித்த நபரை பராமரிக்கும் முறைகளை பற்றி அறிந்து கொள்ளுதல்		ஊழியர்களுக்கு ஒத்துழைப்பு கொடுக்கவேண்டும் - அபேட்டு கரைசல் ஊற்றுவதன் மூலம் கொசு புழுக்களை முதல் நிலையிலேயே அழித்துவிட முடியும் **கொசு கடியிலிருந்து பாதுகாக்க** - வேப்பமரம் மற்றும் துளசி போன்ற மூலிகை தாவரங்ளின் இலைகளை கொண்டு புகைமூட்டுவதின் மூலம் கொசு கடியை தவிர்க்கலாம் - மாலை 6 மணிக்குள் வீட்டின் கதவு மற்றும் ஜன்னல்களை மூடி வைக்கவேண்டும். - கொசு வலை பயன்படுத்துவதின் மூலம் கொசு கடியிலிருந்து பாதுகாக்கலாம். **டெங்கு பாதித்த நபரை பராமரிக்கும் முறைகள்** ❖ ஆரம்பநிலை நோய் கண்டறிதல் மற்றும் சரியான மருந்துகள் மூலம் நோயின் தாக்கத்திலிருந்து காப்பாற்றமுடியும்	கணினி மூலம் விளக்கவுரை கணினி மூலம் விளக்கவுரை	கலந்துரையாடல் மற்றும் பங்கேற்றல்

நிலவேம்பு குடிநீரின் நன்மைகளை பற்றி அறிந்து கொள்ளுதல்	3 நிமி	❖ தன்னிச்சையாக மருந்து எடுத்துக்கொள்ள கூடாது ❖ அருகில் உள்ள மருத்துமனைக்கு சென்று மருத்துவரின் ஆலோசனை படி மருந்து உட்கொள்ளவேண்டும் ❖ டெங்கு பாதித்த நபரை தனி அறையில் படுக்கவைப்பதின் மூலம் மற்றவர்களுக்கு பரவாமல் தடுக்கமுடியும் ❖ தண்ணீர் மற்றும் பழசாறு முக்கியமாக பப்பாளி பழ சாறு குடிக்க சொல்லவேண்டும் ❖ நோயாளியை தொடர் கண்காணிப்பில் வைக்கவேண்டும் **நிலவேம்பு குடிநீர்** ➢ நிலவேம்பு குடிநீர் என்பது சித்தமுறைபடி மூலிகைகளால் தயாரிக்கப்படும் மருந்தாகும் ➢ வைரஸ் கிருமிகளால் உண்டாகும் தொற்று நோய்களிலிருந்து பாதுகாக்க உதவுகிறது.	கணினி மூலம் விளக்கவுரை	கலந்துரையாடல் மற்றும் பங்கேற்றல்

	3 நிமி	➢ இந்த குடிநீர் எல்லா அரசுமருத்துவமனை மற்றும் ஆரம்ப சுகாதார மையங்களிலும் இலவசமாக கிடைக்கிறது. **நிலவேம்பு குடிநீர் தயாரிக்கும் முறை** சுத்தமான பாத்திரத்தில் 100 மில்லி லிட்டர் தண்ணீர் எடுத்துக்கொண்டு அதை நன்றாக கொதிக்கவைக்கவேண்டும். 10 கிராம் நிலவேம்பு பொடி சேர்த்து அந்த தண்ணிர் 50 மில்லியாக குறையும் வரை கொதிக்கவைக்கவேண்டும். தினமும் காலை மற்றும் மாலை 15 – 30 மில்லி வரை குடித்துவந்தால் தொற்று நோய்களிலிருந்து நம்மை பாதுகாத்துக்கொள்ளலாம். **முடிவுரை:** வருமுன் காப்பது நல்லது.டெங்கு கொசுவினால் பரவும் தொற்றுநோயாகும்.மனிதனின் மூலமாக பரவுவதால் நாட்டின் ஒவ்வொரு குடிமகனும் டெங்கு குறித்த விழிப்பு மேற்கொண்டு கொசு உற்ப்பத்தியவதை தடுக்கவேண்டும்.	கணினி மூலம் விளக்கவுரை	கலந்துரையாடல் மற்றும் பங்கேற்றல்

	2 நிமி		கணினி மூலம் விளக்கவுரை	கலந்துரையாடல் மற்றும் பங்கேற்றல்